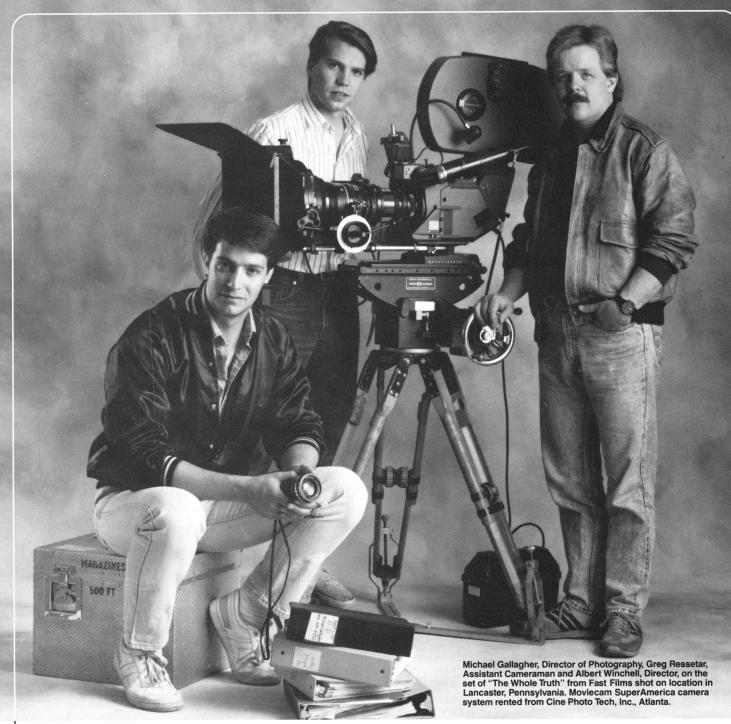
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On Our Cover: Yoko Ono and John Lennon from Imagine: John Lennon (Photo by Kishin Shinoyama)

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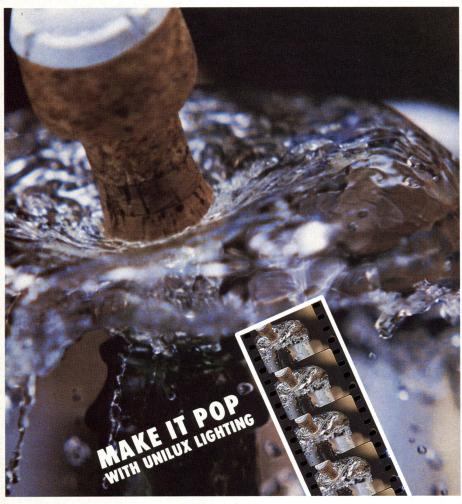
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16 of this year's Academy Awards were won on pictures filmed with ARRI cameras.

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only one of these pictures was shot with cameras from Clairmont. (*Innerspace* – filmed by Andrew Laszlo, ASC.) But since we have more Arriflexes of all kinds than anyone else, we're glad these cameras are on a roll.

Since 1973, in fact, *two-thirds* of the Academy Awards for Cinematography have been won by cameramen shooting with Arriflex 35BL sync-sound cameras. This year the winner is Vittorio Storaro. We salute him and the other nominees.

And this was the 5th year in a row that the Cinematography Award went to a cameraman shooting with an ARRI 35BL

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- Easily attached to most professional ENG/ EFP zoom lenses which feature macro and/or adjustable back-focusing capabilities.
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Letters

Speaking of Critics

Thank you very much for your "Last Page" in the July 1988 issue of American Cinematographer. It truly is unfortunate that the opinions of a few can influence so many, and often it seems that those opinions are ill-formed. I will give credit to one Toronto critic who, after a healthy career trashing others' films, wrote a screenplay that when released kept his peers working overtime finding ways to describe how bad it was. At least he tried the other side.

I am not about to suggest that I, or anyone for that matter, will enjoy every film we see, however, I know that when I go into a movie theater and those lights go down I try my best to sit there with the same unbiased anticipation with which I hope others view my own work.

A lot of time goes into this medium and it's difficult to see months, more likely years of work torn down in the matter of a day. Perhaps if more critics took the task of reviewing others' work as an artistic endeavour of its own, they might find merit in a film beyond the budget or the so-and-so who they never liked directing or starring in it. Such an arbitrary ax should be wielded more responsibly.

Who knows what motivates a critic in the first place? I offer an old saying I just made up: "Those who can, do. Those who can't become critics."

Leslie Gyulay,Toronto, Canada

Dracula Corrections

A few corrections to my letter in the July issue on the 1930 Spanish *Dracula*, provided by historians Scott MacQueen and Bill Littman. Littman ran it recently on a Steenbeck at the Library of Congress.

The miniature used in the cliffside composite was not of Castle Dracula, but of Carfax Abbey with a water vista. The new "rat" shot in Dracula's lair was actually an *opossum*. What appeared to be water running over the crypt steps may have been a double exposure of dry ice fog. Villar does not bare fangs; he flashes his teeth. Lastly, a wolf was *not* shown running across the Seward lawn. Rather, a real wolf *howl* was heard during Villar's "Ninos de la Noche" speech.

—Paul Mandell New York City

24fps

Having spent some 37 years in high speed cine photography using frame rates from 24 fps-400 x 10⁶ fps recording various and rapid events, it generally relates that when a given event is projected at around 16-24 fps, if it appears as normal, then the correct recording speed has been chosen. Likewise 24 fps was the speed chosen as portraying most events in real time, i.e. people, animals, walking and running action, etc. which when projected looked real, and was referred to as normal speed.

At the time 24 fps was decided upon, the only constraints that come to mind would have been lens aperture, emulsions and flicker on projection at lower speeds without multi-bladed shutters.

—E. G. Baker MBKSTS; ABIPP; MGTVC Middlesex, England

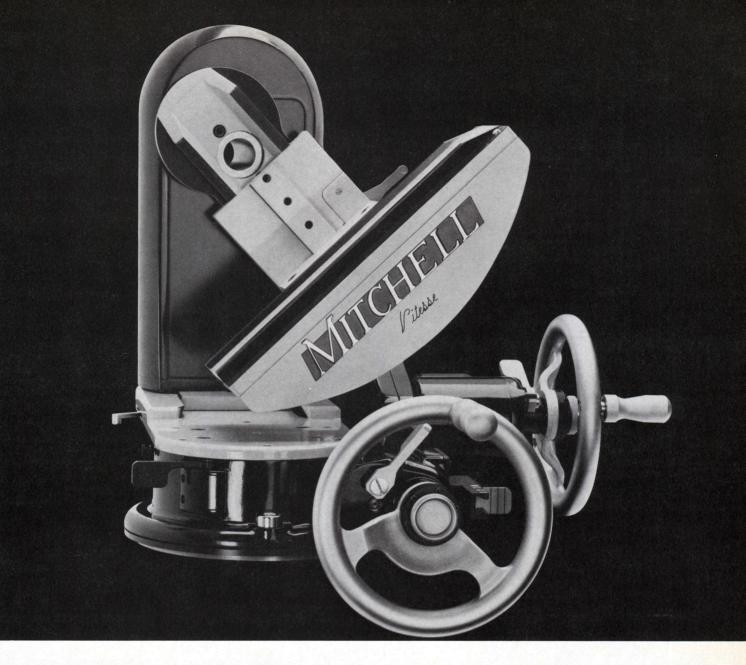
More 24fps

In response the the inquiry of why and how 24 fps or 90 ft. p.m. originated: optical sound recording was the primary cause for 24 fps.

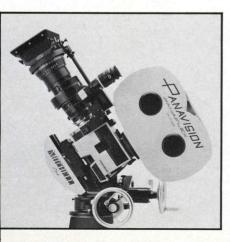
Optical sound presents a difficult problem recording the higher frequencies due to film processing, printing losses and sound optics. There was no fine grain film stock at the time for sound recording.

The higher frequencies needed all the space available. For instance, to squeeze 8,000 cycles onto 16 fps (60 ft. p.m.) would have caused a lot of attenuation and distortion. Therefore, a speed of 24 fps was established, allowing eight more frames per second to distribute the high frequencies.

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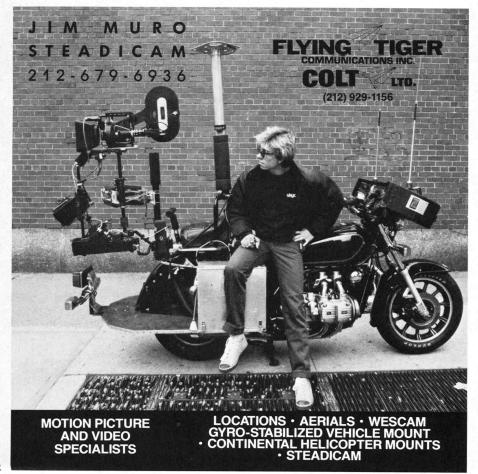
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NAL



was not very good at the slower speed of 36 ft. p.m. But now, with all the improvements in equipment and film, 60 ft. p.m. recorded would be quite satisfactory.

In the silent days, cameramen originally hand-cranked cameras anywhere from 12 to 20 fps (there was no governor). An average had to be established, and 16 fps seemed a reasonable rate for projection.

—Charles Schmitz
Canal-Winchester, Ohio

Another View

I was dismayed to read in the otherwise excellent article on the original version of *D.O.A.* that the author also refers to a 1931 German Robert Siodmak picture as having inspired the idea. Evidently this totally false assumption originates with the publicists of the execrable remake as it was picked up even by the critic of the venerable New Yorker Magazine which prides itself upon the accuracy of all its writers' statements.

The 1931 Robert Siodmak film, which was called *Der Mann, Der Seinen Morder Sucht* (The Man Who Seeks His Murderer), was based on a play by Ernst Neubach and starred the great German comedian Heinz Ruhmann as the unfortunate hero. However, the screenplay – which was a collaboration between Billy Wilder and Robert Siodmak's brother Kurt, was a tongue-in-cheek affair about a youth bent on committing suicide who hires a killer to finish him off. When he gains a new lease on life by falling in love with a young girl, he has to find the killer and stop him before it is too late.

This theme – of a man who pre-arranged his own murder and then, for one reason or another – seeks to prevent it, has been used – albeit not for comedy – in countless Hollywood movies (one example can be found in Richard Dix's "Whistler" series for Columbia), but it bears no relationship whatsoever to the story of *D.Q.A*.

Richard GordonNew York, NY

The error can be traced to Magill's American Film Guide, II (1980) and other sources which pre-date the new D.O.A.

-Ed

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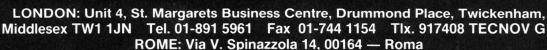
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Arriflex Introduces New, Quiet Camera



Arriflex has just introduced the newest 35BL camera: the 35BL-4s. The new 35BL-4s production camera operates at under 20dBA. With major design and manufacturing improvements developed at Arnold & Richter, Arriflex was able to accomplish this without sacrificing the integrity of the BL-4s' lens-mount-to-film-gate design that has always guaranteed the sharpest image possible with Zeiss PL-mounted lenses, or any lens at all. With the new 35BL-4s, no longer must cinematographers choose a camera that compromises between noise level and image stability.

ARRI first designed a new multilink compensating movement. It features fewer moving parts, a new pitch control, incorporates self-lubricating bushings, and perhaps most remarkably, does not require regular lubrication. The BL-4s' pitch control is built into the movement, and is easily user-operated with a standard ARRI hex screwdriver.

ARRI further redesigned the internal construction of the BL-4s body with the addition of internal baffles, a new door design and seal, sound glasses in the view-

finder and body, and the installation of air tight seals around all outside electrical connectors and switches.

New 35BL-4s features include: conversion from 4-perf to 3; operation at 24, 25 or 30 fps crystal, and 5 to 42 fps variable speeds, with the ARRI V/S Control; a new footage counter in feet or meters, and changeable to read 4 or 3-perforation pull-down; a 5-year footage memory battery; reverse polarity LED, and an LED to indicate the condition of internal fuses.

For more information, contact: Arriflex, 600 N. Victory Blvd., Burbank, CA 91502; (818) 841-7070; Fax (818) 848-4028.

Upgraded Video

Digital F/X, Inc., will exhibit the latest upgrades to the DF/X 200 integrated digital video system at the SMPTE Conference and Exhibition in New York, October 15–18.

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Digital F/X will also introduce advanced paint and video typography features.

The DF/X 200 system's effects application provides sophisticated, yet easy to use, interface. High quality expansion, defocus, and curved surface effects set it apart from traditional digital effects devices. In addition, the library of freshly painted images available to the digital effects application greatly increases the resolution of the imagery.

The DF/X 200 system's 4:4:4:4 video processing provides the highest quality digital image environment available today for either paint or digital effects. Having both applications in the same box provides tremendous productivity advantages.

When editing, manipulation of imagery through the system is transparent, even when working in a component or digital configuration.

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Lighting System

Osram Corporation, pioneers in HMI technology, announces a versatile HMI 270 studio light system that is ideal for either in-studio or on-location film or video use. This powerful modular system consists of a uniquely designed lamp capable of producing five times the light of a comparable tungsten-halogen lamp, two electronic ballasts (one for 110/220V, 50 or 60Hz, and one for 30V DC operation off a belt or Osram's own rechargeable NiCad block bat-

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The core of the Osram HMI 270 studio light is a unit featuring an HMI 250 W/SE metal halide lamp that employs a new technology. Its single-ended design and short arc produce extremely high luminance at a color temperature of 5600° K when run at full power, making it ideal for daylight fill situations. The lamp, which produces 4000 Lumens, comes to full output in less than 1 minute. It has an extremely high optical output ratio of 80% light to 20% heat, making the working environment significantly more comfortable than with tungsten-halogen lamps. The Osram HMI offers several other advantages over conventional tungsten-halogen lamps as well: its Lumanefficacy (Lm/W) is more than 3 times greater, and its luminous intensity is 10 times greater, being the equivalent to a 650 Watt tungsten-halogen lamp.

Best of all, unlike tungsten-halogen lamps, the OSRAM HMI 270 STUDIO LIGHT does not require a conversion filter for daylight situations, thereby allowing its use in many applications. Service life of the lamp is 250 hours.

For more information: OSRAM, 7200 Huran River Dr., Dexter, MI 48130, (313) 426-4646.

Research Camera Available

BTS Broadcast Television Systems GmbH, a joint company of Bosch and Philips, has introduced the T6 Yk9, a high resolution black and white CCD camera (604 x 576 pixels) especially designed for closed circuit television application for research, medicine, and industry.

The camera provides several new features, which makes it ideal for many production processes. For example, the camera can be used for sample recognition, and for surface, movement and 3-D analyses. The camera is able to act like a "robotic eye" for inaccessible production processes as well. It is also designed to be used in television monitoring systems.

The T6 Yk9's high light sensitivity, approximately 1 Lux, enables the camera to operate in poor lighting conditions, where artificial lighting is either not possible or is not suitable due to safety reasons.

The camera, 81mm x 66mm x 158mm, is described to be compact, extremely light, sturdy, and a consumer of little power. The T6 Yk9 uses frame transfer CCDs, which allows the camera's lightexploited surface of the picture sensor to be almost fully exploited. This feature promotes good relative spectral sensitivity and high horizontal resolution, and effectively suppresses any moire effects. The camera's high contrast tolerance and sharpness of moving images are other notable features.

For more information: BTS Broadcast Television Systems, Salt Lake City, Utah, (801) 972-8000.

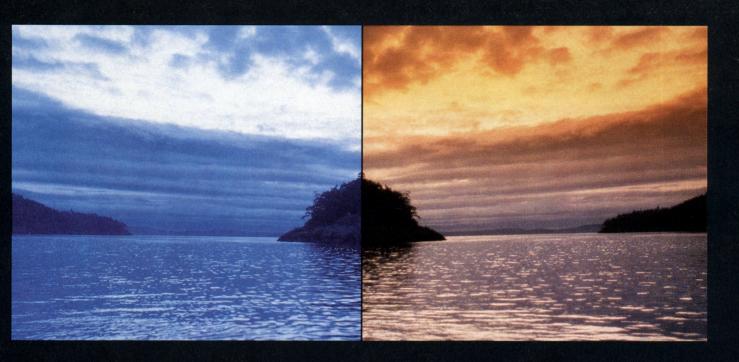
CCD Color Video Camera

The new Elmo CCD Color Video Camera, Model EC-202, is a compact, lightweight high resolution remote camera utilizing standard "C" mount lenses and a separate control unit. The EC-202 features a new CCD image sensor with approximately 300,000 pixels yielding more than 370 lines of horizontal resolution. The CCD technology provides precise image geometry, low lag and no image burning.



The Elmo EC-202 operates as a separate color camera head connected to a control unit with a 6.6 ft. cable. Additional cables are available in lengths of up to 98 feet (30 meters) for varying applications. The camera will operate at two shutter speeds, 1/60 sec. (normal) and 1/1000 sec. (high speed) to produce clear video images.

Other features include automatic switching of internal/external sync and Gen-Lock applications; a new auto white balance sensor circuit that constantly cor"...when natures light is not enough."



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For additional information, write CCD Division, Elmo Mgf. Corp., 70 New Hyde Park Road, New Hyde Park, N.Y., 11040.

It is also used to dust away particles from photographic films, graphic artwork, electronic devices, and still, motion-picture, and video camera components.

The Tiffen "Air Can" features: a chrome valve assembly with filter and 4 inch stainless steel nozzle for pin-point accuracy; a 36-inch clear flexible hose for easy clean-



Multifunctional Stadium

Canada's new trade and sports area, in Saskatoon, Saskatchewan, features a variety of sound reinforcement equipment from Electro-Voice.

Twenty PI-100 compact 12-inch two-way full-range speaker systems are flown from the rafters in a distributed array to cover the upper balcony seats. Fifteen SH-1810 18-inch three-way full-range speaker systems are flown to cover the main amphitheater in a distributed array.

There are three MTH-4 and one MTL-4 high-output Manifold Technology™ speaker systems for stageside or overhead performance reinforcement. Seventy-three Musicaster 100 speakers with TR transformers, provide high quality music and paging in the concourse and arena level walkways.

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Electro-Voice, Inc. is located at 600 Cecil St., Buchanan, MI 49107.

Dirt Filter

Tiffen Manufacturing Corp. adds the Tiffen "Air Can" system to its professional products line.

A compact portable dusting system that permits easy removal of dust, dirt, lint or other dry contaminants, this new product is extremely useful for dusting lenses, optical surfaces, viewfinders, and other delicate or hard-to-get-at areas.

ing in hard-to-reach areas; and a contoured trigger with variable pressure control valve, for delicate dusting to a strong blast.

For more information: Tiffen, 90 Oser Ave., Hauppage, NY 11788.

Fuji Introduces New Emulsions

Fuji Photo Film U.S.A., Inc. ushers in a new era of filmmaking with its full line of five new technologically advanced motion picture films. Designed to meet the demands of today's cinematographers, Fuji's new F-Series offers a film for virtually every motion picture need.

The quality of Fuji's F-Series is achieved by the application of revolutionary emulsion technologies to existing film formulations, producing a full line of new motion picture films that offer improved grain definition and sharpness as well as outstanding color reproduction. Fuji's proprietary film emulsion technologies include the development of advanced double structure grains, L- and Super L-couplers, DIR- and super DIR-couplers and high definition control emulsion.

The new F-Series offers superb internegative matching and excellent intercutting capabilities, the new motion picture film line produces superior results even under mixed lighting conditions and with blue matte work. It is also ideal for film-totape conversion. Hallmarks of the F-Series also include diminished graininess in shadow areas, true-to-life color reproduction of skin tones and superb consistency among different emulsions and film speeds. De-



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Fujicolor Negative Film F-64 is a tungsten-balanced (3200°K) extreme high definition film with an exposure index rating of 64. Featuring sharpness, fine grain, rich gradation and exceptional color reproduction, F-64 is ideal for today's commercial projects where vivid, clear prints are essential. This versatile and high-quality motion picture film gives the filmmaker the freedom of filming through a viewfinder, offering a brighter, more natural looking view.

Fujicolor Negative Film F-64, along with all of the films in Fuji's F-Series, is composed of three emulsion layers, respectively sensitive to red, green and blue light in addition to a protective layer, a yellow filter layer, and an antihalation layer all coated on a clear safety base. The other side of the base is coated with a black resin backing that ensures scratch and static charge resistance and provides surface lubrication.

This emulsion is specially designed to provide superior color under a variety of lighting conditions, such as daylight with use of appropriate #85 filter, fluorescent and tungsten. Plus, if stored at 22°C (72°F) and 40% relative humidity, this remarkable film will yield a storage life exceeding 100 years. Fujicolor Negative Film F-64 is available in 35mm in 200 feet, 400 feet and 1000 feet and 1200 feet.

Fujicolor Negative Film F-500, a tungsten-balanced (3200° K) film with an exposure index of 500, offers ultra-high speed and rich shadow detail. Renamed from the popular Fujicolor High Speed Negative Film AX, this film is the world's highest speed motion picture film and excels in low-light situations where other films would be underexposed. Typical situations calling for Fujicolor F-500 include poorly lit indoor, outdoor or underwater scenes and high speed cinematography where rich shadow detail is a must.

Featuring outstanding grain definition and sharpness, Fujicolor Negative Film F-500 exhibits superior color rendition, excellent suitability for mixed lighting sources, including fluorescent lights, and a wide exposure latitude. If higher sensitivity is required while shooting under adverse lighting conditions, the E.I. rating can be doubled to 1000 by forced processing, with virtually no change in the color balance. Available in 35mm in 200 feet, 400 feet and

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The full range comprises: 135mm f2; 200mm f2.8; 300mm f2.8; 400mm f2.8; 500mm f4.5; 600mm f4.5; 800mm f5.6; 150-600mm f5.6 manual & motorised zooms. Also, to complement the K-35 Series; 10mm f2.8; 14mm f2.8; 20mm f2.8; 50mm f3.5 macro.

The **K-35** series and the new 16mm format **C 8x7** 7-56mm T2.1 zoom lens are also available from OpTex. OpTex are appointed Canon Technical Representatives.

OpTex-converted Canon lenses are available for rental in the US from: **General Camera Corp.,** 540 West 36th. Street, New York, NY 10018, USA. Tel: 212 594 8700.

General Camera West, 940 North Orange Drive, Hollywood, California 90038, USA. Tel: 213 464 3800.

Cine Video Tech Miami, 7330 NE 4 Court, Miami, Florida 33138, USA. Tel: 305 754 2611.

Cine Video Inc., 948 North Cahuenga Boulevard, Hollywood, California 90038, USA. Tel: 213 464 6200.

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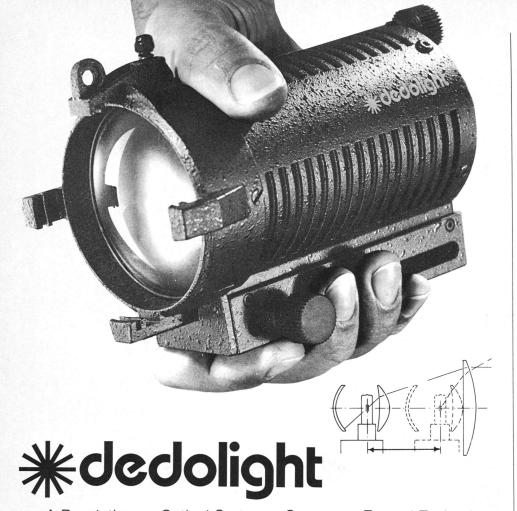
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5, Rottmannstraße D-8000 Munich 2 West Germany Tel.: (89) 525064 Tix.: 529865 FAX (89) 529173 1000 feet and in 16mm in 100 feet, 200 feet and 400 feet, this film is currently available under the designation of AX-500.

Completing Fuji's full line of new motion picture films are three high-quality, versatile films. Offering extraordinary fine grain and sharpness, Fujicolor Negative Film F-64D is a daylight-balanced (5600° K) film with an exposure index of 64 and is designed for outdoor and halogen metal illumination (HMI).

Fujicolor Negative Film F-125, a tungsten-balanced (3200° K) film with an exposure index of 125, features outstanding highlight and shadow reproduction combined with excellent grain and sharpness. Available in late fall, F-125 handles both indoor and outdoor cinematography and consistently delivers prints of the highest quality.

Fujicolor Negative Film F-250, a tungsten-balanced (3200° K) with an exposure index of 250, combines high speed with fine grain and lends itself to both higher speed cinematography and low-light conditions such as night scenes, indoor exposures and underwater filming. Because this film retains excellent grain even in the shadow areas, it is the ideal product for film-to-video conversion of low-light level images. It will be available in early 1989.

For more information: Fuji Photo Film, USA, 555 Taxter Rd., Elmsford, NY 10523.



Acrylic Props Products

Of special interest at Alan Gordon Enterprises are the acrylic products, popular with both still and motion picture/video producers and technicians: These realistic acrylic forms replicate ice cubes, bubbles, drips and pours — and are time and expense saving "musts" whenever they are used under hot lights or for long shooting schedules. These products duplicate the 'look' on film or video of these items, and include a unique "touch 'n bleed" effect that



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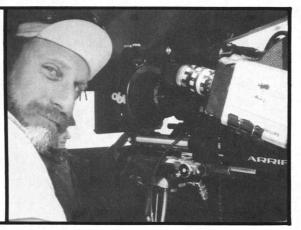
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For further information: Alan Gordon Enterprises, Inc., 1430 Cahuenga Blvd., Hollywood, CA 90078, (213) 466-3561.

CCD Monochrome Camera

Elmo Mfg. Corp. announces the immediate availability of their new model 8700B, 24VAC 1/2" CCD monochrome video camera.

The 8700B features a new 300,000 pixel image sensor yielding more than 420 TV lines (H) resolution. This latest Elmo CCD model is multi purpose camera ideally suited for surveillance, inspection and other industrial applications particularly where 24VAC is desirable.

The 8700B accepts standard C mount lenses, includes line-lock and +6db sens-up control; operates at 1.5 lux at F/1.4 under incandescent; has top and bottom mounting and an on/off power switch.

For more information: Elmo Mfg. Corp., 70 New Hyde Park Road, New Hyde Park, New York, 11040.

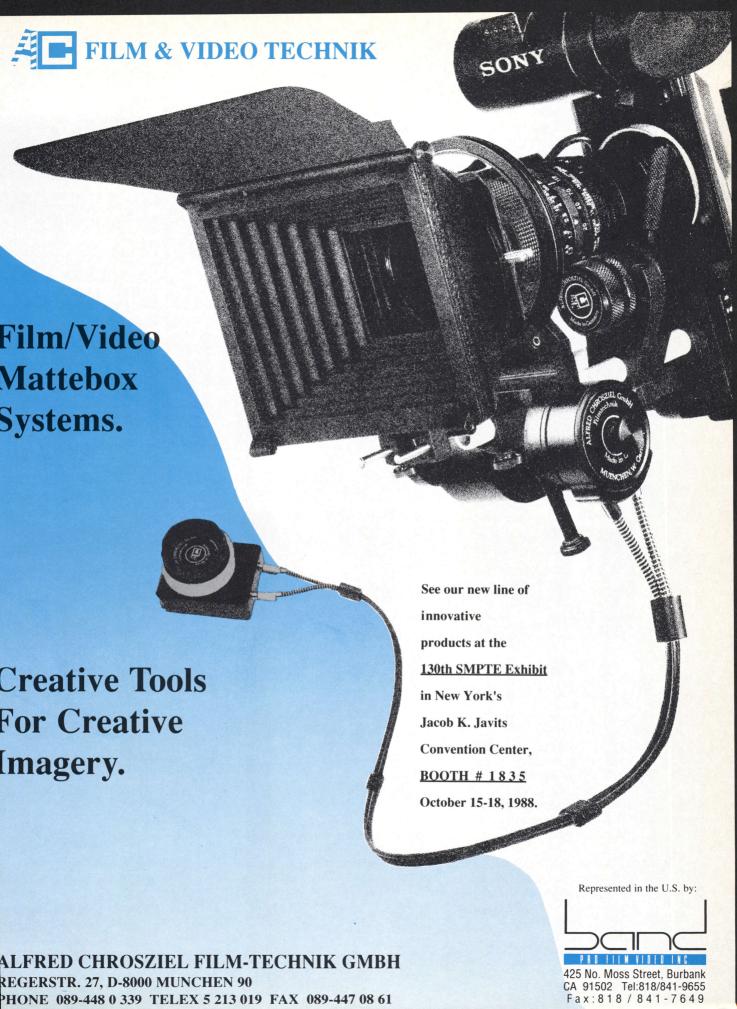
Training Center Open

The first training center dedicated to teaching the techniques of random access electronic post production has been opened by CMX Laser Systems, Inc. at the facilities of The Post Group in Hollywood, Calif. C.L.S.I. is a joint venture of CMX Corporation, manufacturer of advanced editing systems and the Post Group, a leading, full-service production and post production company. C.L.S.I. combines for the first time, the full-service random access editing capabilities, including CMX 6000 rentals, disc making services, systems maintenance and training, as well as system sales.

Five CMX 6000 editing systems are in use at the training center. To ensure that students get plenty of "hands on" experience, there are never more than 12 students per class.

Classes are held five nights a week, with separate sessions for both editors and assistant editors, at beginning and advanced levels. Graduates are awarded CMX certificates.

The CMX 6000 is the only discbased system that combines techniques common to flat-bed editing with the speed and flexibility of random access videodisc



editing. Virtual Master (Simulated Work Print), now patented in the 6000, allows editors to play back source material in real-time and view it without any recording. Reediting capabilities are increased with Virtual Master, since changes can be made instantly.

Unlike other devices, the CMX 6000 is a double system, permitting separate audio and video editing and allowing tracks to be interlocked or slipped. Laser videodiscs, with the CMX 6000, make it faster and easier to lock the machine, keep it synchronized and do trims and re-edits.

C.L.S.I. is located at the Post Group, 6335 Homewood Avenue, Los Angeles, Calif. 90028. Telephone is (213) 463-2300. winning recording artist Ryuichi Sakamoto. The recording also was produced by Rebo Studio. Four high definition cameras and four high definition VTRs were used in conjunction with a dual digital 24-track audio.

Sakamoto composed the musical score for *The Last Emperor*, the Academy Award winner for best picture in 1987, for which he, too, was awarded an Oscar.

"Rebo Studio's existing NTSC 'White Truck'," said Barry Rebo, "and Effanel's two audio remote units share a common design philosophy that teams state-of-the-art portable electronic systems supported by outstanding technical talent."

"We feel it is essential," commented Rebo, "for producers and programmers to begin to invest in high definition



High Definition Recording

Creation of the first major high definition mobile system in the United States is a joint venture of Rebo Studio and Effanel Music.

The mobile system, which is the first joint venture in this field, is designed as a modular high definition multi-camera/multi-VTR production package that operates out of Effanel's 45' audio remote truck. Effanel is an acknowledged leader in multi-track location recording and mixing.

The new system was used for the first time on June 24th at the Beacon Theatre on Broadway in New York City, where Rebo Studio recorded a live concert in high definition featuring Academy Awardsoftware for the future wide-screen television and film environment, complete with comparable quality audio that these systems require – which is why we're so please to be moving in this direction with Effanel as a teammate."

For more information: Rebo High Definition Studio, 530 W. 25th St., New York 10001. (212) 989-9466.



In our November issue, we will review the making of *The Three Little Pigs*, a Walt Disney animated short of yesteryear, one of the first Technicolor cartoons. This tiny feature opened up a whole new world of animated fairy tales which all us kids still hold dear.

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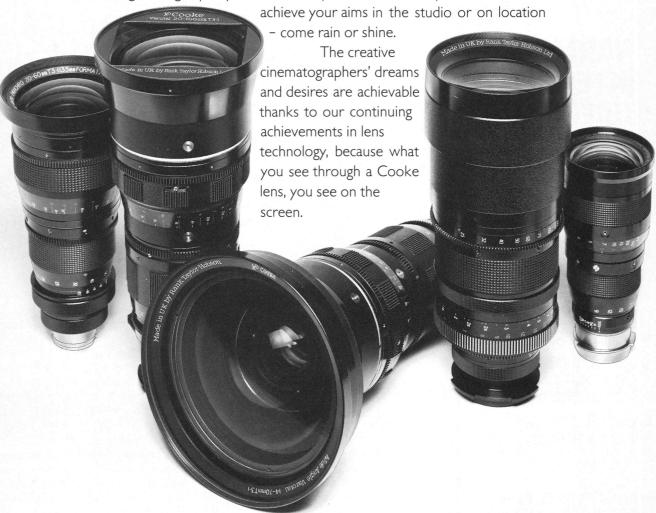
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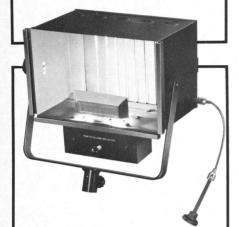


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The Bookshelf

by George L. George

Updating the 12-vol. Motion Picture Guide, the **1988 Motion Picture Guide Annual** covers more than 1500 features from 69 countries that were released last year in the U.S. Each entry provides a plot summary, cast-&-credits, production data, critical evaluations, ratings, awards and cassette availability. Obits, new personalities and also 50,000 films listed in previous editions are included in this valuable reference work edited by Jay Robert Nash and Stanley Ralph Ross. (*CineBooks, Evanston, IL; Bowker, distr., NYC, \$99.95*).

Filmmaking in the People's Republic of China is surveyed in two well-documented volumes that cover its overlapping cultural and social aspects. Paul Clark's **Chinese Cinema** traces its history under the Communist regime, while assessing the input on film content by filmmakers, audiences and politicians. In **Chinese Film**, editor George Stephen Semsel assembles essays on China's theoretical approach to cinema, adding notes on new filmmakers and interviews with leading personalities. (Cambridge U. Press, NYC, \$39.50; Praeger/Greenwood, Westport, CT, \$34.95).

The growing reputation of Brazilian cinema is discussed in two informative volumes. Randal Johnson's **The Film Industry in Brazil** probes its development since 1898 through crises, periods of state support, and the rise of active radical filmmaking. In **Brazilian Cinema**, editors Randal Johnson and Robert Stam offer an historical and critical evaluation of Brazil's movie industry that displays the richness and diversity of its "exuberant" cinematic tradition. (U. of Pittsburgh Press, Pittsburgh, \$28.95; U. of Texas Press, Austin, \$12.95),

Movies reflecting the Gallic character are examined by Robin Buss in **The French through Their Films.** In classic movies by Abel Gance, René Clair, Louis Malle, François Truffaut and many others, Buss finds revealing insights into the social, political and cultural background of the French. (Ungar, NYC, \$18.95).

Social changes in contemporary America are distorted in Hollywood movies, assert Michael Ryan and Douglas Kellner in **Camera Politica**. This tightly argued study analyzes films in many genres from *Beverly Hills Cop* to *Rambo* and *Blade Runner*, and identifies the conservative overlay obscuring radical reality. (*Indiana U. Press, Bloomington, \$47.50*).

American political movies from *Birth of a Nation* to *Reds* and *Invasion USA* are dissected by Terry Christensen in his knowledgeable volume, **Reel Politics.** He observes that the general trend in film tends to reinforce the status quo and rely on macho figures to solve society's problems, thereby discouraging political involvement and the democratic process. (*Blackwell, NYC, \$24.95*).

Hollywood movies' interpretation of American institutions, lifestyles and values is expertly investigated by 14 scholars in the expanded and updated version of **American History/American Film**, edited by John E. O'Connor and Martin A. Jackson. From *Way Down East* (1920) to *Platoon* (1986), movies are found to present a generally valid image of the changing facets of American society. (*Ungar, NYC*, \$14.95).

In **Howard Hawks: A Jungian Study**, Clark Bronson applies psychiatrist Carl Jung's method to his detailed scrutiny of the director's work. It links recurrent patterns and emerging motifs in Hawks' films to the tenets of Jung's theory of analytical psychology. (Garland, Box 5723, Pasadena, CA 91107; \$10.95).

Re-issued in paperback, Stanley Green's **Encyclopedia of Musical Films** is an updated comprehensive survey of the genre. Its 1000 entries include all film musicals since *The Jazz Singer* (1922) with credits and synopses, as well as other useful data and an extensive listing of stars, directors, choreographers, composers, etc. (Oxford U. Press, NYC, \$13.95).

Count Dracula, The Mummy, Dr. Frankenstein's creature, and other popular monsters, vampires and ghouls are corralled by Leslie Halliwell in **The Dead That Walk.** This macabre roundup includes star-

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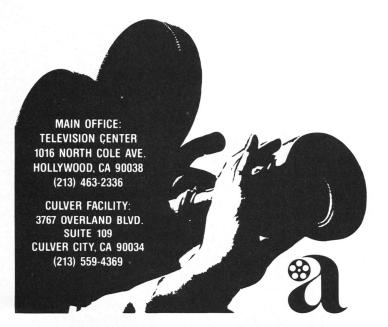
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tling illustrations, lost sequences from famous screenplays, and titillating bits of film lore that pleasantly chilled audiences' collective marrow. (Ungar, NYC, \$18.95).

A lively and provocative biography with an antagonistic slant, Marion Meade's Dorothy Parker: What Fresh Hell Is This? confronts, head on, Parker's persistent struggle with writing, men and liquor. Whether trading guips at the Algonguin Round Table or writing scripts in Hollywood, Parker concealed under a glamorous facade a deep sense of failure and despair. (Villard, NYC, \$22,50).

Newly published screenplays include Louis Malle's Au Revoir Les Enfants, a searingly moving recollection of Nazi-occupied France (Grove, NYC, \$6.95); three collected scripts by Irving Ravetch and Harriet Frank, Jr., Hud, Norma Rae and The Long, Hot Summer, pitting personal problems against social conflicts (NAL/ Plume, NYC, \$9.95); Hanif Kureishi's Sammy and Rosie Get Laid, an intriguing comedy of today's sexual manners (Penguin, NYC, \$6.95); Oscar-winning Kiss of the Spider Woman by Leonard Schrader and Wish You Were Here by David Leland. the saga of the notorious English madam, Cynthia Payne (Faber & Faber, Winchester, MA, \$9.95 and \$8.95).

From St. Martin's Press, three volumes featuring the personalities, careers and private lives of outstanding performers: Laurence J. Quick's Norma, a definitive and engrossing biography of MGM superstar Norma Shearer; Michael Freedland's Jane Fonda, an intelligent and sensitive portrait of the versatile actress; and Actors: A Celebration, in which leading lady Rita Gam displays insight and professional savvy in her interviews with male stars (\$17.95, \$16.95 and \$14.95).

Movie buffs who itch to acquire almost anything connected with cinema will welcome Anthony Slide's compilation, A Collector's Guide to Movie Memorabilia. It lists, with prices, a prodigious number of autographs, stills, posters, magazines as well as props, clothing apparel. novelty items and other relics of a dream world. (Wallace Homestead, Radnor, PA, \$12.95).





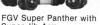
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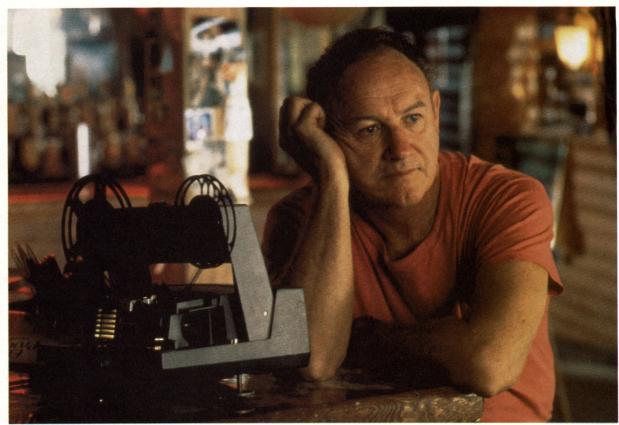


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Photos by Zade Rosenthal

Full Moon in Blue Water

Produced by Lawrence Turman and David Foster Directed by Peter Masterson Fred Murphy, director of photography

by David Jon Wiener

You're a director of photography filming a people-sized story set in a bar. You're on location in a small town working under a tight schedule. Many of the shots are long, with plenty of camera moves to worry about while pages and pages of dialogue are acted out.

Taking a break, you walk outdoors, past the big gel panels covering the windows, hoping for a quiet smoke. But the second you get outside you know you don't have a chance of striking a match.

The monster gales have blown up again.

Storms constantly harassed the cast and crew during the

entire production of *Full Moon In Blue Water*, storms Fred Murphy remembers with amazement and even a touch of awe.

"We were in this bar on the Texas Gulf Coast," he recalls, "a wonderful day, sun shining, happy as a clam. Then, you notice a blackness down in the corner of the horizon and, 'Oh, no...!' You know it's coming at you.

"Twenty minutes later, there are ferocious 40-knot gales tearing everything apart! The water goes from sweet-looking to a raging mess. Any diffusion material you'd put overhead would self-destruct. Things fly all over the place, lights

blow over, prop boats slam up against the shore. The rain would literally be going sideways! Then it'd be gone in an hour! And that would happen every couple of days!"

The title had been a gag to begin with. In the original script, the action takes place as far away from water as you can get, way out in a nameless Texas *desert* town.

"It was going to be shot in a Last Picture Show-type of town," Murphy says, "that was the way it was described. But Pete [Masterson], the director, decided to move the location to the gulf, and put the bar right on the water.

"Most of it still takes place in the bar, but that was a huge change from a dusty, fly-blown Texas town. It became garish, bright, there are gigantic tankers going past all the time. The gulf weather in summertime - everything is so bright! Especially the exteriors. So I wanted to go with the incredibly hard look - no shade an industrial landscape, murky ship channels. It's a very unusual environment. The bar had lots of windows on three sides, so we made some porches outside and gelled the windows with hard neutral density panels."

A Panaflex camera was used, along with Panavision's new line of color-matched T1.9 lenses designed to deliver high contrast and field illumination, with low distortion and very low veiling

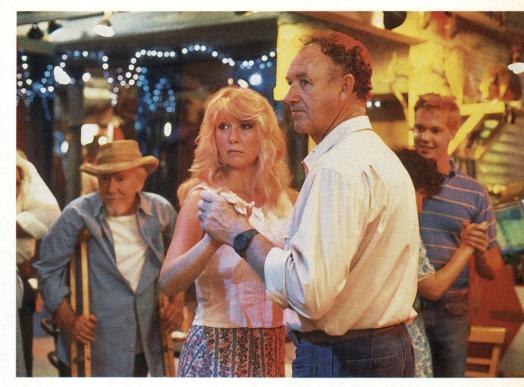
glare.

"Those new lenses are quite interesting," Murphy remembers. "That's the Primo L-Series, which I found to be far sharper than the Ultra Speed. I had a 21mm, a 27, a 35, a 40, a 50, a 75, a 100, and a five-to-one zoom. The 21mm is probably the best wide angle lens I've ever seen, incredibly clear and rich with almost no distortion.

"As far as exposure goes, the daytime interiors were shot at T4, but that's with a serious netural-density gel over the windows, sometimes an N12. Exteriors, the T stop would be around 11, with an N6 in front of the lens."

The company took over a real bar, a place going out of business, and turned it into the main set. Becaue there were so many moving shots, the entire 4,000-foot area was refloored with smooth plywood panels.

"The camera was always going from one end of the bar to the other, in and out of rooms, watching people from other rooms and creeping up on the actors," Murphy explains. "We thought we'd need a Panaglide at some points, but it was just as easy to dolly. We built the doorways big enough and made the joints between rooms smooth and level. And we had two sets of tires, the hard ones that you





Opposite page:
Hackman broods
over home movies
of his dead wife.
Above: Murphy
used heavy pink
lighting in bar
scene with
Meredith, Garr
and Hackman.
Below: Elias
Koteas and
Meredith in
sunset scene.

usually use and a softer set, to absorb more bumps.

"We'd go from an extreme wide shot to extreme closeup in a single shot. And the camera would be moved through medium, to close, back to wide, that kind of thing. I never stuck a fill light onto the camera, they'd be attached to the ceiling or hidden from the side, or someone would occasionally walk a fill light in at a certain moment.

"The story is kind of unusual too," Murphy says, "kind of a

black comedy, an endless series of misunderstandings and confusions. Gene Hackman plays the bar-owner, Floyd, whose wife has disappeared. He's so depressed all he does is sit around watching home movies of her. His father-inlaw (Burgess Meredith) tries to snap him out of it, and Teri Garr is a neighbor who's sort of sleeping with Floyd."

The mesmerizing home movies were also filmed by Murphy, before any of the script was filmed. "I just shot on 16mm nega-

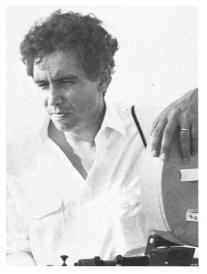
Right: Boardwalk by the Gulf serves as track for scene from Full Moon. Below: Murphy's squint reflects harsh, bright light alongside the water.



tive," he says, "mostly they show Floyd's wife water-skiing. I used a 16mm Aaton, no lights or reflectors, just like a home-movie cameraman. Miles of shaky, jerky footage. The best part was figuring out what Floyd would do to get 'artistic.' You know, shoot his wife from weird angles, concentrate on the wake of the boat, crazy things.

"When Gene Hackman watched those movies on the set, we put an 8mm projector in plain view and hid a 16mm Xenon projector, so it looked like the 8mm was showing the films. I tested syncing the 16mm projector to the Panaflex and it looked better unsynced, more like a home movie. The screen was old and ratty, like you'd pick up in a pawn shop. But for shooting the actual script, I used a bunch of 12Ks for exteriors, the light was that fierce. I've never seen such harsh, tough light. I also used Griffolyn off to the sides.

"Inside, the bar was very bungalow-style, so the ceilings weren't high enough for lights most of the time," Murphy says. "We lit it by shining 12Ks through the windows and built ramps along the



sides of the bar to set the lights on. The building was about 15 feet high on pilings, so we made long ramps to roll lights along. And inside the bar, we'd fill in and edge where it was needed, carrying the light through wherever possible. It was all HMI and the fills were 1200 watt."

This was Fred Murphy's first experience with Eastman's 5297 daylight negative (EI 250) and he found it to be "...infinitely

October 1988

sharper than the '94. When we did a couple of night scenes, I used the '94, and I was shocked at the grain! I lit them with 12Ks and mixed in some small tungsten and HMIs. Because the '94 is tungsten and HMI is daylight, I used a 1/2 85 on the HMIs. I wanted a sort of grayish-blue, somewhere around 4000K, not a thrilling blue. That way, I could add tungsten lights to warm up the parts of the set that were lit by table-lamps."

Because of the moving camera, lighting could get complicated.

"You'd start lighting [through] two windows," Murphy remembers, "then worry if you'd see the window in the shot and so you'd have to move the camera to avoid that.

"It wasn't easy to light when the shot would move from taking in a big area to a much smaller view. On those complex shots, I'd definitely use the '97, for instance, when I'd track from a large room down to a little hallway. The '97 is more sensitive, you don't need such big lights, and in small areas, that's very nice.



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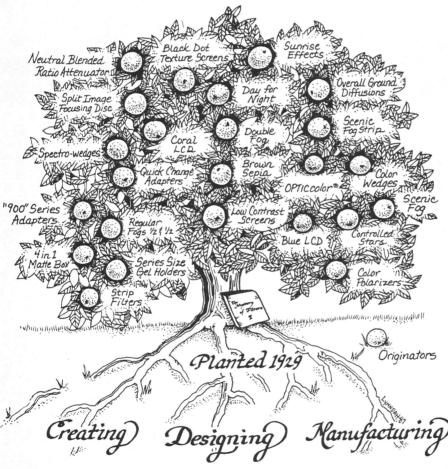




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Full Moon reunited Fred Murphy and Peter Masterson with production designer Neil Spisak, the group having last worked together on The Trip To Bountiful.

"The water goes from sweet-looking to a raging mess. Any diffusion material you'd put overhead would self-destruct. Things fly all over the place, lights blow over, prop boats slam up against the shore. The rain would literally be going sideways!"

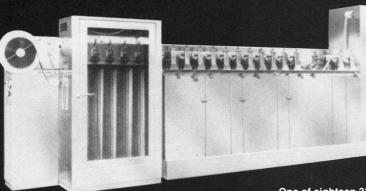
"Neil," Murphy says, "is a wonderful art director. In *Bountiful*, we had very good manners, like old ladies, we had these pretty images. *Full Moon* was much more garish and rough-edged. But we didn't want haute-fifties. It's actually worse than that, it's *ugly*. We wanted it to appear undesigned, really. There were lots of pinks, not flamingo pink, kind of faded, sad pinks, dead greens, with bright oranges and reds."

Generally speaking, Murphy likes to light the set as a whole, rather than each character within the scene. "I light people specifically only when I want to change the way they look," he explains. "The characters usually 'fall into' the light in the room. I did do a few things with Teri Garr, some strong hair-lights but they were coming from weird places, bounce light from mirrors that hit the back of her head."

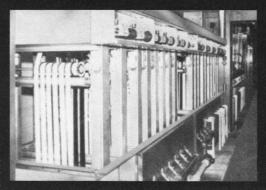
Like Murphy's previous project, *The Dead*, which he shot for the late director John Huston, *Full*

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Moon In Blue Water was filmed, for the most part, in sequence.

"Except for the exteriors." he says, "where we'd shoot all of what we had to do at a given exterior at one time. But since most of it happens in the bar, we shot in sequence and just did what little night stuff we had at the end of the schedule."

The story takes place over a two-day period, starting in the evening and ending two mornings later. "We had scenes all throughout that time," Murphy explains, "and we had to make the illusion of the proper time of day. "We'd add or remove gel layers from the windows; at 'dusk' the interior might be at the same stop as the exterior you glimpse through the windows of the bar.

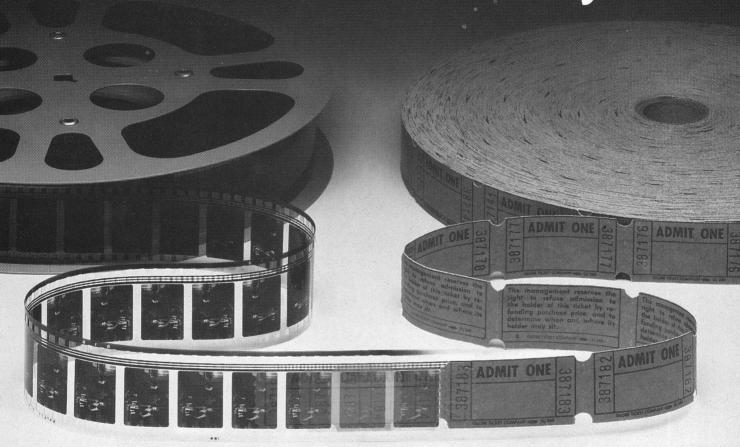
"To change the color of the light, we added warmer gels to the HMIs, making the exterior look a little cooler at dusk. We shot evening scenes at noon sometimes because the scenes were just too long to really shoot at dusk.

"Let's say it's the middle of the day. The neutral-density gels are covering the windows of the bar and vou're always seeing the outdoors through them. You put a light on an actor that's the same color as an HMI, which is the same color as the sunlight outside. Print normally, and they'll all look the same [color], inside and out.

"If you print cooler, both the actor inside and the exterior you see through the windows will get colder. Which is no good if you want to suggest dusk when the sun's down and things are a bit bluish. So we lit the people warmer and left the exterior alone because there was no way to change dozens of rigid gel panels. With the people lit warmer, you film the scene and print cooler. The exterior goes cold and the people become normal. Maybe you throw in a bluish edgelight to suggest dusky light.

"That's all easier said than done," Murphy laughs, "because the exterior is so terribly bright on the gulf. But that's the way it was out there when it wasn't storming; just raging, raging light."

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Photos by Roman Freulich, courtesy of Ron Borst/Hollywood Movie Posters

The Old Dark House Elegant Gothic Comedy

by Gregory Mank

"They were all godless here. They used to bring their women here – brazen, lolling creatures in silks and satins. They filled the house with laughter and sin, laughter and sin. And if I ever went down among them, my own father and brothers – they would tell me to go away and pray...and I prayed – and left them with their lustful red and white women..." – Eva Moore, in The Old Dark House

A cataclysmic storm crashes in the night outside a foreboding old house high in the mountains of Wales. Inside, within a candlelit, decaying Victorian bedroom, a lovely blond of porcelain beauty stands in a silk slip, changing her rain-soaked clothes while a leering old hag, mad with religion, watches.

"That's fine stuff," says the hag, feeling the dress into which the blonde has wriggled – "but it'll rot." And then, eyeing the young lady's bosom: "That's finer stuff still – but it'll rot too, in time!" She darts forth a claw-like hand...

The heroine explores the gothic hall – and a monstrous, drunken, literally Karloffian butler suddenly looms over her. He attacks, chasing the screaming beauty about the hall, overturning a giant dining table in crashing pursuit...

Add to the show such macabre accountrements as a skeletal, prissy avowed atheist, actually terrified of God; a boorish knight and his chorus line girlfriend; a "wicked, blasphemous old man" of 102 (actually played by a squeaky-voiced old woman in beard); a giggling pyromaniac who fondles a carving knife; two wild climaxes, a grand cast, marvelous sets by Charles D. Hall, dazzling cinematography by Arthur Edeson, ASC, and the bravura directorial style of James Whale. The concoction is Universal's long-lost classic of 1932 – *The Old Dark House*.

For many years, *The Old Dark House* languished in filmic limbo – condemned by legal entanglements resulting from William Castle's dismal 1963

remake. While Whale's *Frankenstein*, *The Invisible Man* and *Bride Of Frankenstein* all became beloved cinema folklore, *The Old Dark House* was considered lost. Now, via archival showings and bootlegged video prints, this elegant black comedy has been making a slow, almost underground comeback.

One wishes the comeback could be more official, for *The Old Dark House* is one of Universal's most unusual horror tales, one of Hollywood's most delightfully visual melodramas, and one of James Whale's most personal and fascinating works.

"The man who played the Monster in Frankenstein now transforms himself into the mad butler, in The Old Dark House... Another whale of a picture directed by James Whale, who also directed Frankenstein..." – Universal publicity for The Old Dark House

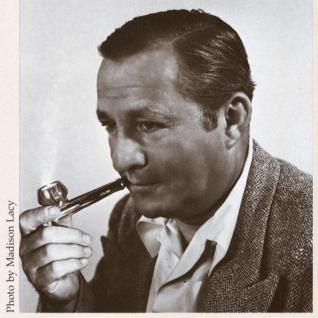
In December, 1931, Frankenstein fully exalted two offbeat Englishmen as the brightest lights of eccentric Universal City. Boris Karloff, "the Monster," a poetry-loving player with the face of a lovesick demon, was relishing a new star contract, while "Jimmy" Whale, Universal's tall, foxy, cheroot-smoking "ace" director, was reveling in the PR accolade of "genius." A follow-up show reuniting the two men was in order.

Producer Carl Laemmle Jr. wanted a shocker for overnight star Karloff; Whale preferred a showcase to luxuriate his own quirky sense of humor. The chosen vehicle, J. B. Priestley's 1928 novel of madness – "Benighted" – did both. The tale of travelers who spend a horrific night in a gloomy house high in the Welsh mountains presented Karloff with the role of the mute, scarred, drunken and bearded butler, Morgan, while the eccentrics populating the abode (along with the visual potential) delighted Whale.

Benn W. Levy, a popular British playwright, fashioned Priestley's novel into a screenplay; Whale surrounded himself with familiar and stimulating coworkers. R. C. Sherriff, who had written *Journey's End*, Whale's passport to glory on the London, Broadway, and Chicago stage (and the 1930 Tiffany movie version), penned the dialogue; cinematographer Arthur Edeson (1891–1970), who had filmed Whale's *Waterloo Bridge, Frankenstein*, and *The Impatient Maiden* (and would photograph *The Invisible Man*), would be behind the camera.

It was a powerhouse cast, each member personally selected by the director: Karloff; Melvyn Douglas (replacing Russell Hopton at the 11th hour) as Roger Penderel, the cynical, war veteran hero; Charles Laughton, in his Hollywood debut, as Sir William Porterhouse, a knighted bore (Whale had played Laughton's mad son in the Hugh Walpole thriller A Man With Red Hair on the London stage in 1928); Lilian Bond as Gladys DuCane, Sir William's chorus line girlfriend; Ernest Thesiger as Horace Femm, morbid inmate of the old dark house; Eva Moore, then motherin-law of Laurence Olivier, as Rebecca Femm, his nearly deaf, religious fanatic sister; Raymond Massey (replacing Walter Byron) and Gloria Stuart as the stranded married sophisticates, Philip and Margaret Waverton; and Brember Wills, whom Whale especially





Above: Philip (Raymond Massey), Roger (Melvyn Douglas) and Margaret (Gloria Stuart) are greeted at the door by Morgan (Boris Karloff). Left: Arthur Edeson. Opposite page: Relaxing between takes are Charles Laughton, Massey, Ernest Thesiger, Lilian Bond, Douglas and Stuart. James Whale and producer Eph Asher stand behind Stuart.

imported from England for the violently mad Saul. In Spring, 1932, all these talents gathered under the mountains at Universal City for *The Old Dark House*, the elegant Whale in command.

Today, Gloria Stuart, painter, author, still an actress (who recently played in the acclaimed PBS special *There Were Times, Dear,* dealing with Alzheimer's disease, which had stricken her late husband, writer Arthur Sheekman), is still a striking lady. She remembers *The Old Dark House* and James Whale – who directed her in three films – vividly:

"The Old Dark House was very interesting for a Southern California girl like myself! My first impression of James was that he was very austere, very cold, very English – very removed from the scene! He was not at all 'cozy,' or anything... With James, every single line, every single movement, your whole approach to the character was very meticulously discussed. He was the most prepared director I ever worked for..."

The lovely, blonde Miss Stuart found working with Whale, and watching him direct his awesome company, an unforgettable experience:



Above: Rebecca (Eva Moore) tears Margaret's gown. In the final version, the gown remains undamaged. Right: The first version of Karloff's makeup, which was rejected.



"All the actors in *The Old Dark House* were very sophisticated, knowledgeable, and experienced, and Whale ran a very tight ship. Karloff was very quiet – after all, he had been under all the heavy makeup beginning at four in the morning – but he was beautifully educated, very soft-spoken, and charming. Laughton was there, with his 'method'; he had to huff and puff in a scene, so he ran up and down the stage to huff and puff, which was an eye-opener for me – I can huff and puff without moving a muscle! Eva Moore, who was the mother of the actress Jill Esmond, had been a great Victoria's son. It was very hard looking at her then to realize that – but now, looking at myself some days, I can understand it!

"All the actors – Raymond Massey, Melvyn Douglas, all of them – they were all stage-trained, very fine, accomplished actors, they all rehearsed a great deal until James had everything exactly the way he wanted it."

The opening episode happens in the stormy

Welsh mountains; it is night, and Philip and Margaret Waverton and fellow traveler Roger Penderel are caught in their car, beleaguered by the apocalyptic storm. When Massey sarcastically laments how much he loves water running down his back, Whale and Edeson focus on a little cascade running off the brim of his hat; when the car rides through a lake of water in the road, Douglas merrily warbles "Singin" in the Rain." Miss Stuart shivers as she remembers filming the scene:

"Ugh! We did it all night for nights with rain machines and wind machines on the back lot...Oh, it was awful! Fortunately, I was very young, and at the time, I thought it was great. But I must say, Melvyn and Raymond complained a lot!"

Intercut with the live action storm are exquisitely wrought model shots of the vintage car struggling along along the eddying roads, the little passengers bobbing uncomfortably in their seats. A miniature avalanche of mud and rocks nudges the car and barely misses burying it, before a towering model of the house is seen from the front seat of the moving auto, through sheets of rain. These scenes and some back projected miniature action were photographed by Universal's brilliant special effects chief, John Fulton, ASC.

The storm sends them to a tall, stone house, where the bearded Morgan opens the door. In Whale fashion, we at first see only part of the Jack P. Pierce makeup through the semi-opened door: one eye, a sliver of broken nose, a gash of cruel mouth. When Massey pleads for shelter, the mad, mute butler replies the only way he can – with a bestial muttering.

"Even Welsh ought not to sound like that," says Douglas.

Inside, Whale and Edeson survey the cold, gothic interior; Ernest Thesiger, of the screen's most memorable nostrils, also enjoys a Whale theatrical entrance as sissified, atheistic Horace Femm, walking down the stairs and announcing to the low-angled camera, "My name is Femm. Horace Femm." Thesiger merrily tosses off some of the film's best lines: "My sister was on the point of arranging these flowers" – just as he tosses them into the fireplace; his toast to Douglas: "I give you – illusion!"; and "We make our own electric light here – and we're not very good at it." Eva Moore, as his religious fanatic older sister, is equally memorable, underscoring the offbeat sexual tones of Whale's work as she caws, "No beds! They can't have beds!"

The interiors were designed by the studio's English-born art director, Charles "Dan" Hall, whose contribution to the look of the show could hardly be overestimated. Complex, bulky ugliness was calculated to cast all manner of disturbing shadows thrown, supposedly, by the flickering electric lights, candles and massive fireplace. Hall's astonishingly dangerouslooking staircases appear in many Universal pictures, as well as a couple of Charles Chaplin productions, but none is more forbidding than the crazy quilt structure that leads up to the secrets of the Femm home. The importance of Edeson's lighting to the effective utilization of this set is illustrated by the fact that during a



Shadows
enhance the charm
of the sitting room.
Below: "Danny"
Hall's watercolor
sketch of the set.

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four-year period it was used in other Universal pictures, (i.e., Secret of the Blue Room, Secret of the Chateau, The Great Impersonation, The Lost Special) and in the works of outside companies leasing studio space (Strange People, The Vampire Bat, etc.) – and it never again looked as impressive as it had in its debut appearance.

At times, the dialogue sounds very much like popular British comedy of today, such as when Margaret tries to get through to the deaf Rebecca:

"It's a dreadful night."

"What?"

"I say, it's a dreadful night."

"Yes, it's a very old house. Very old."

"It's very kind of you to let us stay."

"What?"

"I say, you're very kind!"

"Yes, it is a dreadful night..."

This leads to one of the movie's best scenes: in a Victorian bedroom, Miss Stuart, strikingly lovely in her slip and silk stockings, changes her clothes by candlelight, Miss Moore watching in evil fascination. The storm is terrible, and the hag shows Margaret the bed where Rebecca's sister Rachel, "handsome and wild as a hawk," had died when she was 21. She had hurt her spine in a horse fall. "Many a time I sat here listening to her screaming... She used to cry out to me to kill her, but I'd tell her to turn to the Lord. She didn't. She was Godless to the last!" Then Rebecca, her witch's face nightmarishly distorted in a mirror, tells of the house, of its sinful evenings of yore with the "lustful red and white women" favored by her brothers and her father – 102 and still alive upstairs.



Janny Kar

"You're wicked too!" Rebecca tells Margaret.
"... You think of nothing but your long straight legs, and your white body, and how to please your man!"
The sermon on sinful vanity over, Rebecca exits – pausing to check her hair in the mirror. However, Rebecca's image haunts the heroine (who unwittingly opens a window and allows the storm to blast inside). In a virtuoso piece of direction and cinematography, Miss Stuart gazes in the mirror at her own distorted face, imagines the warped reflection of Rebecca leering "lustful red and white women!" and then sees the spying face of Morgan, before she runs hysterically into the halls, the curtains blowing madly in the storm's wind.

The vignette is beautiful – superbly festooned with shadowy hues, candlelight, that perverse mirror and, finally, Miss Stuart's dress – fated to be



Above: Sir Roderick Elspeth "John" Dudgeon) tells the Wavertons that all the other members of his household are insane. Below: Morgan threatens Roger, played here by Russell Hopton, who was replaced by Douglas during production.



described by the New York Times reviewer as "a stunning creation!" Whale personally masterminded this gown, and Miss Stuart recalls:

"I said to James, 'I don't understand it everybody else is in rain-drenched clothes, and here I am, changing, in a pale, pink, bias-cut evening dress with the avanti straps' - I said, 'I don't get it, James!' And he said, 'As you run, and later, as Karloff chases you, I want you to go through the halls like a flame.' And I said, 'Well - OK!' It was a little strange!"

It was also, as Miss Stuart discovered, strikingly visual - the sort of episode that former cartoonist Whale loved creating.

The film madly rolls on: Sir William Porterhouse, broad, boisterous and with a Lancashire accent, and his girlfriend, Gladys DuCane (nee Perkins), arrive; there is a funereal dinner ("Have a potato," drolls Thesiger repeatedly); Douglas and Bond fall quickly in love, and woo each other in the stable - a potentially stuffy scene that Whale initiates and ends with an insomniac rooster crowing irreverently. Another charming touch: Miss Stuart, before a wall, passes a few moments casting animal shadows with her hands. Suddenly, Miss Moore's own frumpy shadow invades the scene, destroys Miss Stuart's "animal" - and stalks off.

The most horrific episode follows: Morgan, drunk and violent, creeps up behind Margaret and attacks. As the blonde screams, darting about in that dress with the avanti straps, Karloff, his eyes rolled up into his head, pursues rapaciously. The sequence includes a wicked series of Hallowe'en closeups: a profile shot of the panting butler; a full shot of his leering, scarred face; frightening perusals of the mad eyes, the broken nose and the twitching mouth. Morgan overturns the dinner table in his mania, the dishes smashing; finally, Philip knocks him out by hitting him with a lamp and sending him crashing down the steps, where he lies unconscious – temporarily.

Meanwhile, during such morbid adventures, Whale kept the company charmingly entertained; every day there was teatime. "The English contingent had tea at 11 and 4," says Miss Stuart - "and I was never asked!" It was a caste touch that hurt the young actress. However, as The Old Dark House progressed, the relationship between the arch (and homosexual)

Whale and Gloria Stuart changed:

"It was interesting... I was separated from my first husband at the time, and James took me to the theatre many times - Jane Cowl, Katharine Cornell, all the greats that came to Los Angeles - and he was a wonderful companion. Off the set, he had a very sharp sense of humor, and he could be very cutting, too - he could really cut you off at the pass! Away from the set, he was charming and relaxed, but back on the set the next morning, it was 'Ach-tung' time."

High in the house, Miss Stuart and Massey discover Sir Roderick Femm - 102 years old, sprawled in his long-suffering death bed. Sir Roderick cackles how two of his children died young; how "madness came"; how his eldest son, Saul, hopelessly insane, is locked behind a door high in the house - to keep him from setting fire to it; how Morgan serves as mad Saul's keeper. Perhaps Whale's sly approach is most clearly evidenced by the fact that Whale cast a woman in the part, named Elspeth Dudgeon. She was the oldestlooking human being he knew, so he had Jack Pierce paste a beard on her, allowed her to deliver her lines in her own falsetto tones, and coyly billed her as "John Dudgeon." (She later worked for Whale, under her own name and gender, as a Mother Superior in 1936's Showboat.)

Now, however, Whale mischievously shifts into truly frightening melodrama for the last part of the film. First, Morgan attacks again; a wild, violent struggle, the men crashing against a grandfather clock and through the hall, Edeson's camera breathlessly following as Morgan struggles and gurgles. The butler is hardly subdued before a second climax follows: a ghostly hand is clutching the bannister. Saul Femm, a raving, Bible-obsessed pyromaniac, has been let loose by the drunkenly vindictive Morgan. The waif-like madman informs Penderel that the family keeps him locked up because he knows they killed the bedridden Rachel. Was the family guilty of a mercy killing? It is



Morgan introduces the legendary Sau to the quests.

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the raving of a lunatic? The truth stays lost in the house's ominous shadows. Saul hopes to incinerate the house – as a fiery offering to God. "...Flames are really knives," says Saul. "Sharp and cold...They burn like ice!"

Telling the Bible story of Saul and David, the maniac sickly taunts Penderel with a carving knife, finally throws it at his head, missing. Then the insanely cackling Saul runs wild, setting the balcony afire as the hero chases him. The men fight; in a chilling touch, Saul rabidly bites Penderel at his neck. Finally, the two crash through the balcony railing and fall. Penderel survives, Gladys exulting "He's alive!" hysterically (and familiarly); Saul is dead.

It's here that Whale presents his most wicked vignette. Morgan, crashing through the mayhem, finds Saul's corpse. Hugging the cadaver, the mad butler breaks – and weeps pitifully. Then Morgan picks up Saul, and minces miserably up the steps – rocking him, swaying effeminately, as if he were some nightmarish mother cradling a dead, horrific infant.

"The cold light of day," signalled by that irreverent rooster, provides the denouement. The Wavertons leave, Horace waving goodbye like a foppish Roman emperor, Rebecca emitting a farewell croak like a dyspeptic raven. Porterhouse, having lost his girlfriend to the romantic lead, snores good naturedly, and Penderel, his head bandaged, proposes to Gladys for a romantic fadeout – punctured and punctuated by Sir William's snores.

The final result, completed in May, 1932, was a highly peculiar and individual work – purely stylized by Whale. He was a director in every sense of the word; he had even orchestrated a full cacophony of stormy sound effects which underscored the movie. Gloria Stuart, who would star for Whale in *The Kiss*

Before The Mirror and The Invisible Man, says:

"Whale loved making films. Every morning — oh, he was so enthusiastic! He'd come in and he had every single set-up on the left hand side of the page opposite the dialogue. He had a wonderful cameraman, Arthur Edeson, and they just worked hand-inglove. But Whale was the one who said what the set-ups were. Most directors would say to the cameraman, 'What do you think?' but James just said, 'I want it there' — and that's where it was!

"Working with James, I thought all movies were going to be like that. Well, forget it! When I made Roman Scandals, the director, Frank Tuttle, used to say, 'OK, kids, believe it.' Another of my favorite non-directors used to say, 'OK, kids, let's go laughing and scratching!' But James Whale..."

The Old Dark House became Universal's Halloween "boo" of 1932. Universal, the eggs primarily in Karloff's basket, added a foreword:

PRODUCER'S NOTE: – Karloff, the mad butler in this production, is the same Karloff who created the part of the mechanical monster in *Frankenstein*. We explain this to settle all disputes in advance, even though such disputes are a tribute to his great versatility.

The Old Dark House opened at New York's Rialto Theatre October 27, 1932. The New York Times praised the film. While certainly not for everyone (Variety slapped it as "somewhat inane"), it was successful. Yet it was doomed to a strange, ignominious fate mercifully spared all other Universal classics. Last reissued theatrically in the early 1950s, it was not a part of Universal's Shock! package, sold via Screen Gems to television in the late 1950s. It was rumored "lost"; a seeming death blow came via William Castle's 1963 The Old Dark House, starring Tom Poston and Robert



The late Saul (Brember Wills) is carried away by Morgan.

Morley – a horrible film, properly roasted critically, and guilty of entangling the rights so cruelly that all hopes of revival of the 1932 version seemed dashed. At length, revivalists rescued it from oblivion (director Curtis Harrington writes in Danny Peary's anthology, "Closeups," of his attempts to find a print through his work at Universal in the late 1960s). The movie tentatively made a very limited comeback in archival showings – in sad 16mm versions. At present, 35mm prints have become available (although limited). While Universal/MCA has released beautiful pre-recorded videos of Whale's "big three" horror epics, video collectors can only secure "bootlegged" copies of *The Old Dark House*, of wildly varying quality.

Thusly - forlornly, erratically, and (perhaps)

illegally - does it presently survive.

What is The Old Dark House about? Whale's Frankenstein, of course, is about blasphemy, souls, the dynamics of a young alcoholic actor named Colin Clive and the beauty of a 43-year-old British black sheep born William Henry Pratt; The Invisible Man, about ambition, insanity, John P. Fulton effects and the symphonic voice of a Napoleonic little actor named Claude Rains; Bride of Frankenstein, about theatricality, misanthropy, the world's most unforgettable female "monster," and the magic an irreplaceable actor could create in his most famous role. All of these films, too, are about James Whale: the almost feminine beauty of his visual sense; his wonderful theatricality mixed with an exciting, filmic style; his sly, wicked dashes of humor; and, finally, his own sense of isolation, alienation, bitterness. All these touches were part of a unique man one who created his own Byronic public self out of a poor boy from Dudley, England, only to destroy that self in his Pacific Palisades pool in 1957.

However, *The Old Dark House* is unique amidst Whale's famous, oft-seen horror shows: it survives, almost bitterly, almost defiantly, as the director's most unusual work, a terror tale showcasing his own style, with the least incense-burning to public taste. Stocked with horror flourishes, it is primarily a high exercise in macabre comedy, peopled with ensemble

eccentrics, playing on a mad level above the head of many audiences, perhaps delighting the vision of the director more than any audience member who paid to see the new Karloff show in 1932. While Karloff's Morgan is legendary, the role is small; there are no historic special effects; the star, really and truly, is the director.

By various accounts, the ingenious James Whale was an egomaniac. The story goes how, during Frankenstein, Whale forced Karloff to run up the hill to the old windmill time and again, carrying Colin Clive over his back, out of jealousy for the infamy Karloff was winning (and was destined to win) as the Monster. Whale would see the public acclaim inspired by The Invisible Man and Bride of Frankenstein serenade others as well, himself (for all of Universal's hype) largely sentenced to the low public profile that shadowed most directors of the 1930s. However, with The Old Dark House, it is the eerily sophisticated vision of an eccentric, superb director which truly shines – joyously communicated by wonderful talents who, respectfully, never upstage it.

One might fancifully imagine that the long limbo of *The Old Dark House* was posterity's revenge for so offbeat a work. One might guess that its long-incoming reinstatement to public accessibility is aggra-

vated by its bizarre, highly personal style.

Nevertheless, with Karloff's drunken leers, Gloria Stuart's delicacy and avanti straps, Ernest Thesiger's "Have a potato," Eva Moore's distorted reflection, Brember Wills' cackle, and Arthur Edeson's enchanted camera, it seems destined to continue its rise from oblivion to fascinate more and more audiences. And – again, fancifully – one might imagine that if one looks closely enough into the foreboding shadows of *The Old Dark House*, one might see the sardonic ghost of James Whale, enjoying himself hugely, and winking – slyly.

Gregory Mank, of Delta, Pennsylvania, is the author of "It's Alive! the Classic Cinema Saga of Frankenstein" (A. S. Barnes) and the forthcoming "The Hollywood Hissables" (Scarecrow Press).

The Old Dark House

A Universal picture presented by Carl Laemmle; directed by James Whale; produced by Carl Laemmle Jr.; associate producer, E. M. Asher; based on the novel, "Benighted," by J. B. Priestley; adaptation and screen play by Benn W. Levy; added dialogue, R. C. Sheriff; art director, Charles D. Hall; cinematographer, Arthur Edeson, ASC; film editor, Clarence Kolster; editorial supervision, Maurice Pivar; special effects, John P. Fulton, ASC; music, Heinz Roemheld; make-up artist, Jack P. Pierce with Otto Lederer; set decorations, R. A. Gausman; assistant director, Joseph McDonough; recording supervisor, C. Roy Hunter; sound technician, William Hedgcock; camera operator, King Gray; assistant cameraman, Jack Eagan; stills, Roman Freulich; Western Electric recording. Running time, 71 minutes. Released October 20, 1932.

Morgan, Boris Karloff; Roger Penderel, Melvyn Douglas; Sir William Porterhouse, Charles Laughton; Margaret Waverton, Gloria Stuart; Gladys DuCane, Lilian Bond; Horace Femm, Ernest Thesiger; Rebecca Femm, Eva Moore; Philip Waverton, Raymond Massey; Saul Femm, Brember Wills; Sir Roderick Femm, John Dudgeon (Elspeth Dudgeon).

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SYLVANIA







by David Heuring

David L. Wolper, producer Andrew Solt, producer/director Sam Egan, co-writer/co-producer Interviews photographed by Nestor Almendros, ASC eature length documentary films rarely rate wide release; financially successful films of this type are even fewer and farther between. The case of Warner Bros'. biographical compilation film *Imagine: John Lennon* is exceptional, however.

Several factors make Lennon an excellent biographical subject. His initial popularity rode the tidal wave of the Beatles, but the complexities of his personality move his story beyond the realm of rock'n'roll tragedy. As he distanced himself from the Beatles, Lennon's influence broadened into philosophical, political and social issues. His refusal to accept the status quo inspired and took nourishment from a generation, and the idealism and subsequent disillusionment of the era are reflected in Lennon's personal story. The public nature of his life laid bare his faults and excesses as well his triumphs. It is a tragic and bitter irony that Lennon's shocking assassination came just as he seemed to reach a balance point in his stormy life, a time of personal calm and artistic renewal.

In their desire to tell this story, the filmmakers gained access to an overwhelming volume of source material. The unrelenting media scrutiny of the Beatles, along with Lennon's penchant for home movies, made his life one of the most cinematically well-documented in history. Lennon's personal film collection was made available to the filmmakers, and thousands of still photographs and footage from the Beatles' three feature films enrich this formidable base. All in all, the filmmakers culled from more than 230 hours of recorded images.

Inherent in this wealth of material was the primary technical problem of the project: the gamut of film types, video formats, and quality levels that had to coalesce into a consistent 35mm feature presentation. Visual recordings of Lennon's life came in every conceivable form: 8mm, 16mm, and 35mm prints, positives and negatives; in black and white, color and color anima-

tion; and videotape in the ³/₄", 1", 2", and VHS formats.

So the challenge came in two parts. The first was to sift through a mountain of material to find the right gems, and combine these with illustrative current material to tell an objective and interesting story. The second was to integrate a wide variety of formats and deterioration levels into a theater-quality 35mm print.

ture *This Is Elvis*. Wolper is probably best known for his production of the critically acclaimed "Opening and Closing Ceremonies" of the 1984 Los Angeles Olympic Games.

Wolper enlisted the help of producer, director and co-writer Andrew Solt. Among his numerous network television specials and documentary film credits Solt counts the 1979 ABC special *Heroes of Rock'n' Roll* and a number of

"My role in society, or any artist or poet's role, is to try and express what we all feel. Not to tell people how to feel. Not as a preacher, not as a leader, but as a reflection of us all."

-John Lennon

The project was kicked off when Lennon's widow, Yoko Ono, contacted David L. Wolper. Ono considered making the film herself, but deferred to Wolper in the interests of objectivity. Wolper, an award-winning documentary producer, has been involved with more than 500 films, including *The Making of the President: 1960*, which won five Emmys, the Academy Award winning *The Hellstrom Chronicle*, and the documentary theatrical fea-

Jacques Cousteau specials, including Oasis in Space and Calypso's Search for Atlantis. Solt was director of research on the award-winning rock documentary Let the Good Times Roll (American Cinematographer, Nov. 1973). In 1985, Solt was awarded an Emmy for the two hour special Cousteau: Mississippi.

Solt recently discussed the *Imagine* project: "Whatever your opinion of John Lennon, he was a phenomenon. He had great Opposite page: Lennon performs at the "One to One" concert in 1972. Below: The earliest known photograph of George Harrison, Lennon, and Paul McCartney, circa 1957.





Lennon and Yoko Ono with Al Capp at the 1969 Montreal Bed-In. (16mm frame blowup)

influence on a generation of people, and his life story is in itself a cultural document. His popularity is based on the music, of course, but he was also a thinker, a poet and a philosopher. His story is similar to Gandhi's in that he was a pacifist who died tragically. Of course, Lennon is not the historical figure that Gandhi is, but their stories have parallels. I've wanted to do this film for years, and when we acquired such a wealth of source material, I was thrilled.

"Yoko's cooperation has allowed us to compile the most complete film library ever on John Lennon, including his career as a Beatle, John and Yoko looked at home movies as an art form, and they often had a couple of cameras running at home. So I knew that she had a lot of material, but when it arrived in two huge air cargo pods, I was amazed. When we did This is Elvis, we started with 20 to 30 hours of material, and occasionally we had a problem illuminating certain aspects of Elvis' personality. For the Lennon project, we began with around 230 hours of material. This volume of material, and in particular the press interviews through the years,

has allowed us to make a departure from normal documentary style. We've eliminated the omniscient narrator and let John tell his own story subjectively – thoroughly and straightforwardly, but in his words."

To facilitate the elimination process, all 230 hours were transferred to videotape and catalogued, bit by bit, with the help of a computer indexing program. Each moment of film has been described and entered, so that one can type in, for example, "Lennon getting out of a car on 16mm color print," and the computer will provide the tape locations of the 15 or 20 examples which fill that particular request. After the painstaking "sifting" process yielded a rough preliminary version, the images were returned to film for further editing.

As one can imagine, some very strange sequences are hidden in the miles of footage. In an example, one by one, Andy Warhol, Fred Astaire and George Harrison emerge from and return through a door, intercut with John and Yoko whispering to each other. Solt discusses the approach to the intimidating task of choosing footage: "It

was a tremendous job, but we were glad the choices were so rich. Sifting through this stuff was difficult, but it was also the fun of the project. Of course, we know the important moments in John's life, we know chronology and key events, and the film returns to these moments when necessary. In terms of the film, however, we had no idea where the 'gold' was. There are so many private and intimate moments, and we have to ask ourselves which ones are appropriate. After we found the great moments, we had to take other factors into consideration: How does it tie into the storyline? What's the setup? Why will it work? Then, the music has to be blended in as well as possible, to present a story that has entertainment value throughout, is satisfying and illuminates all the varied aspects of his life. We wanted to reveal the truth about Lennon, not just make a sentimental nostalgia piece."

The story continuity revolves around the well-documented recording sessions for Lennon's second solo album, "Imagine". The sessions took place during a particularly balanced and creative period for Lennon, at his home in Tittenhurst. Lennon's 'narration' leans on outtakes from interviews conducted by the BBC, RKO, American network television, et cetera, and is filled in with concert film, Beatles footage and Lennon's revealing and often highly personal and private home movies. Woven into this base is a series of new interviews of those close to Lennon, shot for the film by Nestor Almendros, ASC. Interviewees include Ono; Lennon's first wife, Cynthia; his sons, Sean and Julian; and his close friend Elliot Mintz.

Supervising film editor Bud Friedgen was brought onto the project for two reasons: his tremendous experience in the feature documentary field (his long list of credits includes *That's Entertainment! I* and *II, That's Dancing!*, and *This Is Elvis*), and his ability to work with both tape and film. "Because of the nature of the project," says

Solt, "we felt it was imperative that we find someone who could work in both media. Otherwise, everything that the tape editor learned in the first half of the process would be lost when we switched to film."

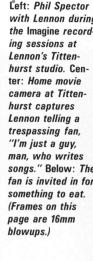
The first version of the film was 20 hours long. All the footage under consideration was organized chronologically. "At that point, none of us could sit through the whole thing once, no matter how fascinating it was," laughs Friedgen. "It would take us a week to get through it, saying 'that's a keeper', or 'that's a maybe' for each particular chunk.

"John and Yoko shot their movies pretty much cinema vérité...so there are miles of footage from which we had to discern certain moments.."

"This was a unique project for me," continues Friedgen. "In most of the other documentary films I've done, I was working with material that had already been edited once, and filmed economically in the first place, with a specific story point in mind. John and Yoko shot their movies pretty much cinema verite, whatever happened, happened. So there are miles of footage from which we had to discern certain moments that would be important and fascinating to an audience. Then we had to try ways of putting it together to make it move well and tell a story. It was a challenge."

Although every possible technical step was taken to ensure visual quality in the film, Solt and Friedgen agree that the editing policy emphasized content over quality. At one point, some ground rules were agreed upon concerning laying a sequence originating from a 35mm print against a sequence transferred from tape. It was thought that the visual shock would draw attention to the less than perfect quality of the tape sequence. "Once we tried it," says Friedgen, "we found that it didn't matter. It's the emotion of the mo-









In Japan with son Sean, shortly before beginning his "comeback."



ment that makes a scene work or not work. When you put those restrictions on yourself, suddenly you find yourself not doing what you want to do. Also, it's not as if there's an hour of technically perfect film, and then a sudden loss of quality. There's a trade-off with this film. What you give up in quality, you more than gain back in feeling. The audience can sense the reality, and that's the more powerful emotional element."

When the length was cut to three hours, a kinescope of the 3/4" tape was made, which served as a road map. Using the time code and computer reference guide, Friedgen and his assistants pulled the original pieces of film or tape that were to be blown up. The actual blowup work was farmed out to various houses. Hollywood Optical did the 16mm, F-stop did the 35mm to 35mm transfers, and Image Transform handled the tape transfers. All the 8mm was flown to Interformat in San Francisco. CFI had a hand in the project, while some of the audio material was run through Sonic Solutions. Each of these components was transformed to 35mm for the final editing sessions.

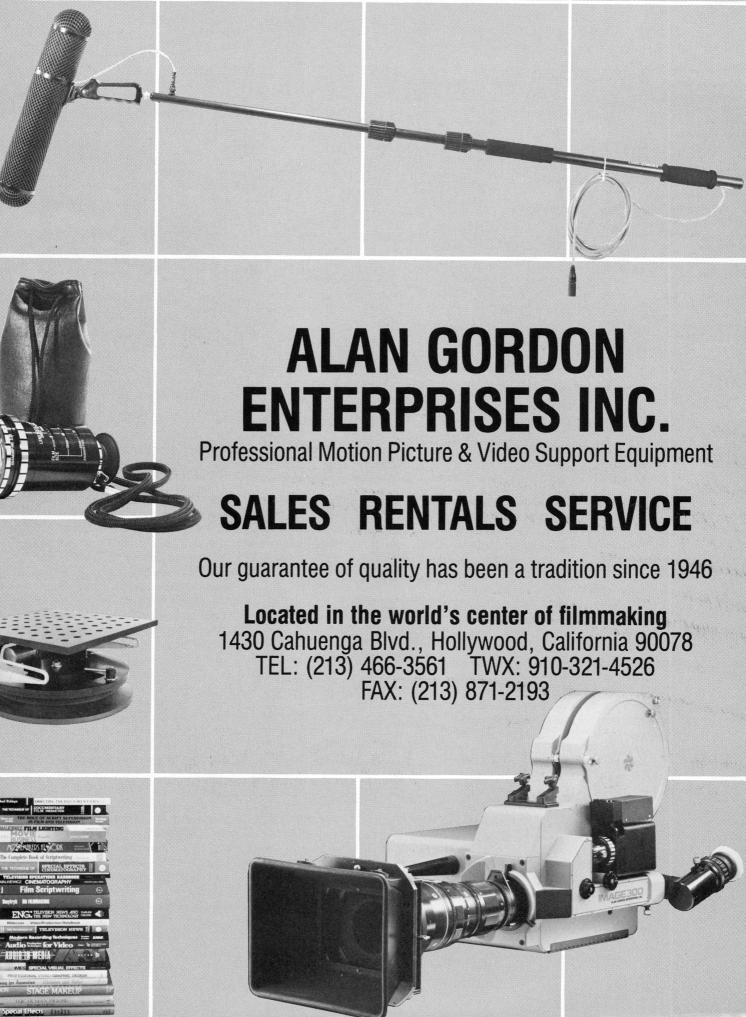
"The audience can sense the reality, and that's the more powerful emotional element."

"The transfer and blowup work is amazing," says Friedgen. "Even in the time since we did *This Is Elvis*, the technology has improved considerably. It's almost impossible to detect scan lines in this picture, whereas with *Elvis*, they were a big problem."

Hollywood Optical Systems, Inc., oversaw the transfer of more than 2,600 shots for *Imagine: John Lennon*. David Hewitt explains the process: "We evaluated the footage in regard to contrast, grain structure, age (i.e. discoloration and fading) and tested each scene for compatibility. Some of the newer footage was made more compatible with the old through a degrading process. In some cases, we had to

create a more dense internegative and print it at a higher light to increase contrast. In other cases, we did multiple duping to increase the grain. In order to get a stronger image on color negative, we forced exposure on black and white fine grain, and compensated for the overexposure coming back to color. We were grateful for *Imagine's* computerized cross indexing system, which could identify and locate a scene in a matter of seconds."

Gavin Schutz, vice-president of engineering at Image Transform, relates the specifics of the tape transfer: "The origination tape is played back on a videotape machine, and the signal is separated into red, green and blue signals. Certain electronic enhancement techniques increase the apparent resolution of the image. Each piece of tape is evaluated and processed for the best result on film: corrected for original integrity, color imagery, and whatever may have been lost to the ravages of time. We have sceneto-scene control of the enhancement, phase correction, and smear



Right: In the early days. From left to right: Stu Sutcliff, John Lennon, Paul McCartney, guest drummer Johnny Hutchinson, and George Harrison. Below: Throngs of fans in Central Park for a memorial service after Lennon's assassination in December 1980.



correction, and we can change the red, green and blue values of gain, black level, and gamma independently. For each scene, the three color values are stored into the computer. Then the signal is sent over to an electron beam recorder, which writes, in corrected form, a red image, a green image, and a blue image onto three successive pieces of black and white film, frame by frame. The result is a color separation master, which is used to make a negative, from which prints are struck. We have a device attached to the recorder which adapts the electron beam to hide the television line structure.'

Generally, the visual quality of the film is surprisingly pristine. The wide variety of source formats, however, makes for some curious sequences. One piece of footage was shot in Polavision, Polaroid's ill-fated entry in the 8mm home movie market. Polavision film, which developed itself in the camera, has unusually large grain structure; after blowup to 35mm the grain structure is gigantic. The



result is almost surreal, a moving mosaic reminiscent of a Seurat painting.

"Much of the film will be new to even the most die-hard fans, because of the diversity of our sources."

For an important scene which takes place at the famed Montreal Bed-In, the filmmakers made some concessions in the name of visual continuity. "In this sequence, Al Capp comes to the Bed-In to interview John and

Yoko," says Solt. "It's a very revealing and conflict-ridden interview, and we felt it was important to include it. The problem was that we had 16mm color footage of Capp, but with very little coverage of John and Yoko. From a different source, we found some black and white videotape which covered John and Yoko during the same interview. So in the midst of this intense argument, there were sudden jumps from 16mm color film to another angle on black and white tape, and back. It was very distracting, and it stole the effectiveness of the scene. We did some tests, and determined that electronically colorizing the tape image prior to blowup was the answer. American Film Technologies did the colorizing. The differences in color are slightly noticeable, but much less jarring and distracting."

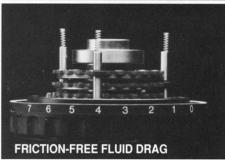
Of course, a major concern in a biography of John Lennon is music. Thirty-six songs from all phases of Lennon's career form an audio backdrop for the film. George Martin, the Beatles' long-

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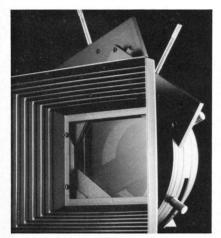
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time record producer, was recruited to remix the original recordings for theater presentation, and a double album featuring these songs will be released in conjunction with the film. A companion book with a forward by Yoko Ono is also in the works, to coincide with the film's October 1988 release.

"We wanted to reveal the truth about Lennon, not just make a sentimental nostalgia piece."

"Getting this film made has been quite a challenge, especially with all the interests involved. But it has been a labor of love, and we're very happy with the results," concludes Solt. "It's a reality piece with a powerful and entertaining character. Much of the footage will be new to even the most die-hard fans, because of the diversity of our sources. The film should appeal to a broad spectrum of people, however, because John Lennon was more than just a musician – he was a poet, a thinker and a philosopher. There were many aspects to his personality, and hopefully Imagine: John Lennon will help illuminate them."

Things To Come...

The Accidental Tourist will be a feature of our November issue. We interview John Bailey, ASC, who photographed this comedy drama starring William Hurt, Kathleen Turner and Geena Davis.

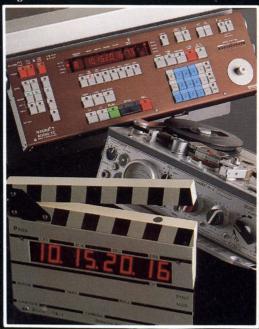
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December will be an issue devoted to Special Effects, with stories from the production of Beetle Juice, My Stepmother Is an Alien, Dead Ringers, The Blob, Die Hard, and a famous oldie, The Invisible Man.

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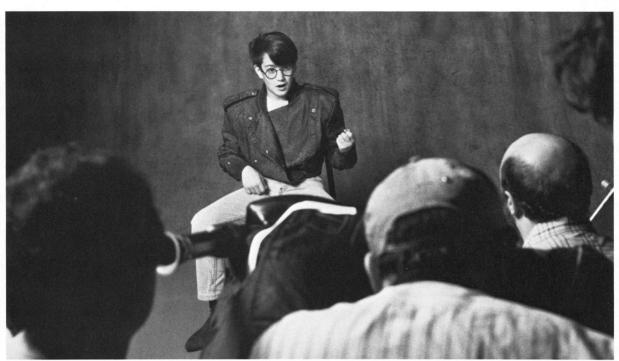
Recording audio with center-track Time Code is nothing new to the makers of these shows. Smart producers from coast to coast have already discovered the advantages of using the Nagra IV-S TC Field Recorder and the Nagra T-Audio in post production. By eliminating costly steps in the transfer process, they save time, they save money, they save the audio from unnecessary generation loss. It's your production, it's your time, it's your budget. Next time you put a crew together, make sure there's a Nagra with Time Code on the set.



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Right: Brenner, Almendros and Solt during an interview session with Sean Lennon.



Photos by Louis Goldman

Almendros Records *Imagine* Interviews

by David Heuring

The concert, interview and home movie footage that makes up the heart of *Imagine: John Lennon* is intercut with "new" interviews of Lennon's family and friends, including Yoko Ono, Cynthia Lennon, Elliot Mintz, and Lennon's sons Sean and Julian. These touching and revealing conversations were shot specifically for the film by Nestor Almendros, ASC.

Almendros recently completed *Nobody Listened*, a feature length documentary made up mostly of moving interviews with Cuban refugees, who recount for the camera the repression in their homeland. In the May 1988 issue of American Cinematographer, Almendros explained in detail the techniques which helped to make those documentary interviews effective.

For the interviews in *Imagine: John Lennon*, Almendros employed similar techniques, adapting them to the situation when necessary. "We adopted the 'less is more' philosophy," recalls

Almendros. "We decided from the start that the tone of the interviews should be quiet and subdued, to provide a counterpoint for the rest



of the film. Andrew wanted the interviews to look uniform. We remembered that the interviews in *Reds*, which were all filmed before a black background, had that sense

of continuity. We felt that for our purposes, however, black was a bit sinister and overdramatic, so we settled on a streaky gray with other subtle colors in it, and one side a little darker than the other. It was just a painted sheet of paper, which could be rolled up easily and brought to the scene of any additional interviews, to maintain that sense of unity. Of course, we asked the interviewees to wear simple, neutral clothing, nothing too busy, so as to emphasize the face.

"In each of the interviews, there was only one light on the subjects," says Almendros. "We employed the same technique used 300 years ago by Vermeer, Rembrandt and Caravaggio, who lit their portraits with a window facing north, slightly above the subject. This gave them the soft light of the sky rather than harsh sunlight. We imitated this technique with one soft light, off to one side or the other and coming from slightly higher than the faces. Depending on the photogenics of the particular

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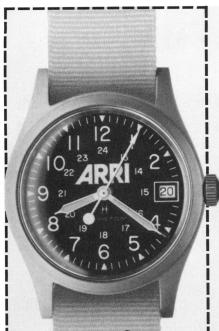
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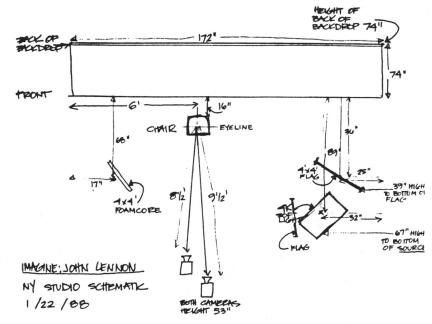
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person, we would place the light slightly more frontal or off to the side, and we used white Styrofoam on the dark side to bounce the light as a wall would. But that was all. There was no backlighting and no fill, just one soft light.

"We shot the interviews in 16mm, with an eye toward blow-up to 35mm," he continues. "Much of the footage that makes up the rest of the film was shot in 16mm, or shot in 35mm and reduced, or in some way multigenerational. In very few cases were they working with an original. So my feeling was that a 35mm shooting of the interviews would collide with the rest of the movie – it would be like a

punch in the nose. It would be too good, too perfect to compare with the second or third generation sequences. By doing it in 16mm for blowup to 35mm, we hoped to retain a contrast between past and present without having a clash. We used the fast Kodak 16mm film, but instead of rating it at 350 or 400, we rated it at 250. By overexposing a little bit, we ended up with a thicker negative, which yields a finer grain in the blowup.

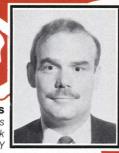
"We shot with two cameras. Ira Brenner was the other cameraman, and our cameras remained stationary for most of the time. During moments of emotion, however, I would zoom very, very

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slowly, so as not to draw attention. These zooms were not planned – I would just get inspired on the spur of the moment to either do it or not do it. We put the zoom on a motor and set it on the slowest possible speed, so it's very subtle, almost undetectable.

"Andrew was asking the questions, and we used the technique of the interviewer sitting as close as possible to the camera. This way, the eyeline would be very close to that of the lens, so the audience would feel that the subject was talking to them. They weren't looking exactly into the lens, because there's something 'indecent' about that, it makes the audience uncomfortable. Only professionals should look directly into the lens. This technique took us as close as possible without giving an embarrassing feeling to the audience. In the film, you don't ever see or hear the interviewer, which is a departure from Nobody Listened. In that film, because we were not allowed to shoot in Cuba, there was not much material to cut into the interviews by way of explanation. The wealth of background material in Imagine: John Lennon made it possible to eliminate the interviewer."

In addition to the interviews, which were conducted in January 1988, Almendros shot several scenes throughout New York for use in the film. These include a slow motion, backlit shot of falling eyeglasses in the doorway of the Dakota (the site of Lennon's murder), footage of the places Lennon had been that night, and some Steadicam shots moving through Ono's eerily silent apartment.

"Even when we were shooting, we could tell that the interviews would turn out to be emotionally moving. Both of the wives are strong and interesting people, but in different ways. The children are very photogenic and came off very well – they're both very beautiful kids. Sean explains some of the changes in his relationship with his father, and Julian is somewhat more touching and innocent, very pure boy. You can see the father in his sons, and seeing the father is the point of the film."

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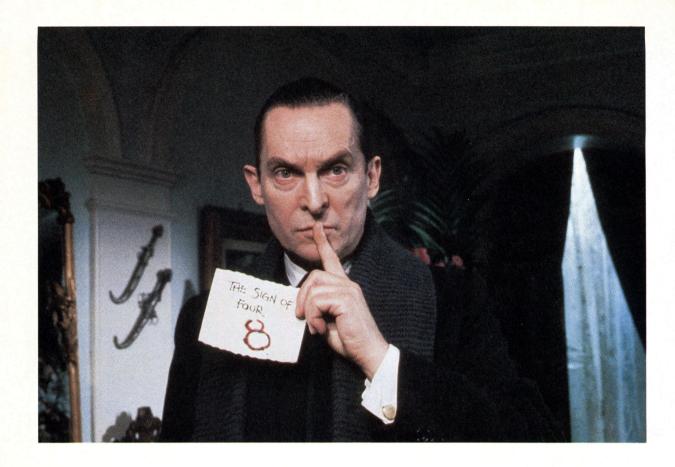
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Sherlock Holmes: The Sign of Four, Chap. 6

by Nora Lee

ew literary or historical figures have captured the loyal following of Sir Arthur Conan Doyle's legendary detective Sherlock Holmes and his faithful chronicler and companion Dr. Watson. As of 1980, no fewer than 61 actors have portrayed the estimable Mr. Holmes in more than 175 films – figures made even more remarkable considering there are only 60 original Holmes adventures.

There are new names and new versions of the adventures which must be added to the list. Sherlock turned 100 in 1987, and England's Granada Television celebrated. Over the last four years Granada has produced 20

Holmes adventures – all starring Jeremy Brett as Holmes and most starring Edward Hardwicke as Watson. They have aired in the United States on PBS through WGBH Boston. The centennial tribute to Holmes, *The Sign of Four*, will air in most markets in October in a special two-hour presentation.

Ray Goode, BSC, is one of about five lighting cameramen associated with *The Adventures of Sherlock Holmes*. He has filmed 8 of the 20 episodes, as well as *The Sign of Four*. The Sign of Four is the first time Granada has opted to shoot anything on 35mm film – everything else has been done in 16mm.

oode, a spritely Englishman with a quick smile, began his career in 1957 at the now defunct Palmer Studios. "I was a very lucky young man -I never worked as an assistant. I started shooting animated cartoons when I was 20. In between, I had the the great opportunity to work with good lighting cameramen on commercials. I worked at Palmer until I was 26 - I'm 54 now, by the way. Then I came to Manchester, to Granada Television. I've been here since 1961," recalled Goode.

"I started in animation, then I did about a year of natural history programs – always having a want to go back to doing studio lighting, because that was my background. Since 1967 I've been doing just that – I worked for Granada on most of their major dramas. And I've got five or six years to go...."

American audiences are most familiar with Goode's work in two much-acclaimed miniseries, *Brideshead Revisited* and *The Jewel in the Crown*. Goode and Granada were the perfect combination to resurrect the sainted Sherlock.

Goode was especially excited about his opportunity to light Granada's first 35mm endeavor. Even counting Granada's reputation for outstanding work on period pieces, The Sign of Four seemed a great risk in the beginning. "The script was presented to Granada in 1981 as a pilot film for the Sherlock Holmes series. I wasn't involved with it then, but various people read the script and logistically it was so difficult that they decided not to do it. It was put away. Then all of a sudden after 18 or 19 episodes of Sherlock Holmes - it reappeared as Granada's first 35mm project. It's a hell of a project and very, very difficult to photograph," admitted Goode.

The story revolves around a boat chase down the Thames river through London at night and is set near the turn of the century. The producers were able to locate authentic 30-foot long coal-driven steamboats, but they could not roll back the clock on London's modern river front.

"The real difficulties became apparent when we did our original 'reccies' (location scouting) - the property has changed so much, especially along the Thames, that there was nowhere to point the camera," explained Goode. "And at night, London is lit with modern street lamps and there is an orange glow. So we had a tremendous problem. Because we were using 35mm, I took a deliberate step to shoot a lot of the material on the Thames day-for-night something we don't usually do in 16mm. And we tried to achieve and did achieve - a transition



from day-for-night to night-fornight shots on the blink (magic hour) by using a searchlight and cutting hard into the lens. Then we literally lifted our two boats out of the water and took them to the Norfolk Broads where there is no tide. We carried on from that nice sweep across the lens into real night-for-night photography. We finished off with a good 12 to 14 minutes of a boat chase."

The Sign of Four was shot in January, February and March of 1987. According to Goode, it was not an ideal time of the year for light. "You get a bit of daylight from about 9:00 am to about 2:30 pm, which is normally grey. Night falls at 4:00 pm. What amazed me is that we had 19 exterior days and nights in January and February – yet we only had one evening when a mist dropped down! So on that evening we went inside the boat and carried on."

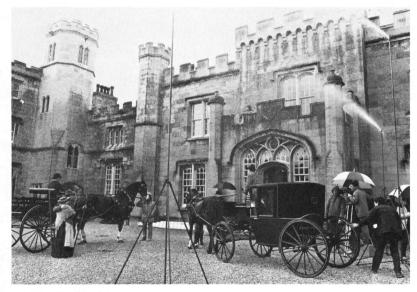
Anyone who's seen satellite weather pictures of England on a given day will understand in part the problems with location lighting. The weather sweeps across the island with amazing

Left: Cinematographer Goode. Below From The Sign of Four with Holmes and Watson seeking clues.





Above: Baker Street in Manchester as crew creates 'London' fog. Below: On location, filming outside Leighton Hall in Lancashire for The Dancing Men.



speed and a single day can contain every type of light. Goode explains, "One of the problems in England, of course, is that you can go on a reccie and see a location in a totally different light than when you actually arrive to photograph it.

or instance on *The Sign* of *Four* we went to a location, to a big house in Harrigut that we used for the Pondicherry Lodge. We went on a beautiful day. And that is a *house*, believe me. It's magnificent. The

sun shafted through the windows on this particular morning and the director, Peter Hammond, said to me, That's what I want.' And I said, 'Come on Peter, you'll never get that in a bloody month of Sundays, unless we're lucky.' Because what we lighting cameramen can't do, is hold time still. What we've got to do is fill in what our eye has seen as the best part of that light – artificially – and keep that artificial light going for six or eight hours." No small

task and perhaps the heart of the art of cinematography.

ther locations presented other challenges. "We went to Malta on The Sign of Four," he continued by way of further explanation, "thinking we were going to get some wonderful exteriors. And my god! when we got there it rained for four days...I tell a lie. We shot one fairly big master scene late into the day with a fairly warm sun. But the reverses that we wanted to do didn't work as a location. We shot the master one way, finished at the location at 4:30 in the afternoon and decided to pick up the reverses the following morning at a location 20 miles away.

''We recreated reverses - which included the sea – but on that morning it was pouring with rain! In televison you are not in a situation where you can say, 'Right lads, just sit in the buses for a day and wait.' You have to put your life on a limb, get the big lamps out, light it, tighten up on the shots a bit and warm it up with a couple of filters and hope it works. You hope the master's carrying your shots and that the reverses will take care of themselves. Fortunately they did. But it's always a problem in England."

Thirty-five millimeter was a new and exciting experience for Goode, especially with day-for-night shots. "I hardly ever shoot day-for-night in 16mm. My experience just hasn't been very good. But in 35mm, I jumped at the chance. Three-quarters of what we shot in Malta was day-for-night.

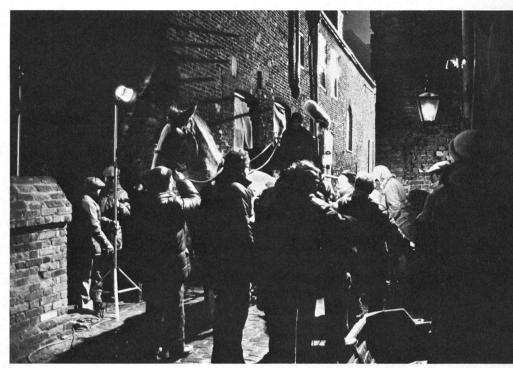
"It does help to shoot on 35mm. You have a four times bigger negative. You've got some latitude. You've got a good laboratory that can respond to your needs. In 16mm you get a little bit off and up comes the grain like golf balls. You've not got a picture. I am always very much aware that all the material we shoot has to be transferred to tape for transmission. I doubt anyone sees original

film footage. Again, it's not what the cinematographer produces in rushes that one worries about or indeed the final show prints that we get – we always go for the very best we can get. What happens after the transmission is anybody's guess. I was in The States and saw a couple of episodes of *Brideshead* and I nearly died!

"But that was another lesson I learned," said Goode philosophically. "You can be so particular in what you want when you're working that you sometimes fail to realize that a good movie does not have to be well done technically. If the words are good – the story and the acting's good – you've got a good movie, don't you?

"I worked for many years with Michael Apted. He started off here at Granada as a researcher. He progressed to directing and I did all his early drama films. I remember on one particular play, I said, 'Can we do that just once more, Mike?' and he said 'Why?' I wanted to improve it technically. He said, For chrissake that's a great performance we've just seen! But we'll do it again and we'll decide in rushes.' At the rushes the next night I could see a fault in the operating - it wasn't bad, just a bit funny and awkward. The second take, which was technically good, didn't have as good acting. So, there you are," related Goode modestly. Perhaps bad cinematography can't destroy good acting and a good story, but "Goode" cinematography is a wonderful addition to the telling of the tale.

Goode is grateful that he had the opportunity to work on Granada's great experiment. "You must realize that this 35mm film has opened up great possibilities for me. I would love to do more. I was very honored when I got my BSC (British Society of Cinematographers) for *Brideshead*. I think I am the only cameraman in television that is a member. You see, I have never shot a feature film. All



Night shoot in Kings Lynn for The Man With the Twisted Lip.

I want to do now is prove my worth. I hope that *The Sign of Four* is only the first of a lot of 35mm work coming out of Granada."

oing to 35mm required new cameras and new I filmstocks. Like all good directors of photography, Goode tested stocks beforehand - in this case Agfa, Fuji and Kodak. "I took a bit of advice from my friends in London and decided in the end to go with the fast Fuji stock (ASA 500) for everything except the opticals. We went back to Kodak stock 5247 for those. It worked extremely well. I used to find myself in the afternoon working at about T4.5 and I realized that if I had been working in 16mm at 64 ASA, I wouldn't have been working. Out of that sort of bouncy afternoon light, I got some lovely moody pictures. Being allowed to go a little later into the afternoon and indeed, start a little earlier in the morning if we wished to, was quite nice."

The choice of camera was approached with the same thoroughness. "When it came to choosing the 35mm camera, it was wide open," Goode said. "There were no pressures at all. I went to London with the head of

our department, John Williams, and looked at them all. I looked at the Arriflex BL4s, Panaflex and MovieCam. In the end I went for the MovieCam - only because for me, it's a state of the art camera. It's got everything on it that I want. I'm an Aaton camera lover – I've been using it for many vears. This MovieCam camera sort of typified everything that I liked about the Aaton. But I didn't have to use the camera. My camera operator was the one using it and it seemed to be the right choice.

"Don't forget that my whole crew works in 16mm as well, and had to have a crash course in 35mm. I hope they exploded an old myth about 16 and 35 – they all did a great job. We did a good movie in eight weeks."

Americans undoutedly envy their English counterparts when it comes to scheduling. A two-hour television movie in the U.S. is lucky to get a six-week schedule and only the top-rated episodic shows can stretch their one-hour schedules to eight days. Goode and his crew had three weeks or 15 working days for each 52-minute episode of the Holmes series.

Top: Interior of 221B Baker Street in the Manchester Studios with Jeremy Brett at left, David Burke and Natasha Richardson filming for The Copper Beeches. Center: Filming outside Dunham Massey, Chesire on the steps with Brett, Anne Louise Lambert, Edward Hardwicke and Zulema Dene. Below: Lambert aboard an Australia-England liner in Granada's Manchester Studios.







The 35mm Sign of Four was icing on the cake for this very popular series and for Goode. The other 20 episodes were done in Granada's normal 16mm format, and yet the style and the quality are comparable. Goode's years of experience have taught him much – and he shared his lessons willingly.

n his choice of filmstock: "When I shoot in 16. I use Kodak 7291. The trend is to move to 7292. People like it. It's of a low grain and it's nice for mixed lighting. A lot of the younger cameramen here at Granada go for it. It's a little faster - 320 ASA. I personally like to give the focus puller a little more depth of field to work with. I know that his iob is incredibly difficult. We all do our little bit in picture making, but the focus puller has to be 100 percent. With super acting, super directing, super sets and nice lighting - if it's soft focus, it's no good. I always try to impress that to them and I try to help by giving them an extra half-a-stop if I can."

And on his choice of camera and lenses: "On the Aaton I've got a good complement of lenses. I've got a basic set of primes – Distagons – right away through, the 9.5mm to the 135mm. I've a Cooke 5-to-1 which I use a lot. It's a super lens. I've also got a T2 Distagon 1-to-10 that I use a lot. I carry a Canon 300 – and that's probably the maximum equipment I need for a shoot."

Goode began his discussion of style with some information about his lighting package. "When I do a lighting requirement for any picture, I write it in longhand and photocopy it, and I've kept them over the years. I've recently started to refer back to the lighting requirements I used five years ago. It hasn't really changed a lot. The style has changed and what I do with the lights has changed, but the basic package is the same. I like to use a 12K HMI a lot. I like to use it on a moon tower and get it way up in the air. I think it's a very cold light

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Extras filming on the Baker Street set in Manchester.



and I might use a quarter to a half CTO on it to warm it. I always use it as a ³/₄ backlight and fill from the front. I rarely use it as a main source. It's just sort of there to lift the background a bit.

"I use a lot of small lamps for atmosphere. For daytime, I generally carry a couple of 2Ks, a couple of 4Ks, and a few 575s. In the tungsten area, I use a lot of small lamps. I can use 50 Misers or Peppers on a set—they're like baby 10Ks. We use Minuets over here, too. They haven't got a Fresnel on them. They're just an open-fronted CIS lamp and you can spot and flood them."

Like many of his European counterparts, Goode is a master of reflected light. "I like to feel that my lighting style is gained through reflected light. I use a lot of light reflected up in the air. I might use silver boards or I might get a painter to paint boards for me a particular color, to get that color back into the set. That's something I decide with the director.

"One of the things you're always thinking about when working at very, very low exposures and T-stops is how to get a glimmer out of a pratical and make it look real and not like a light source that you've filled in from the top with a Pepper or Miser. I like to keep the lights full down, but on the other hand, it's

no good producing something that looks smashing to the eye and won't work. If you say to your focus puller, I want to work at T2 or 1.8 and suddenly the director says, 'Can I have a split two-shot there?' you have to say No, you can't.' You explain that they are either sharp at A or sharp at B. You have to start at A and pull focus to B because of the low light. In the end, a style develops and I think it is dictated by the way you use your practical light sources. Especially if you are in an historical period and you want to use your candles.

like to use a bounce fill light, but I put it through a fader and I pull it way back into the reds. I very rarely use direct lights. On the sets that are some 20 feet by 20 feet I might put a few Pups in, but generally speaking, I stick with the small lamps and a few lamps on the floor. I like to get light into the eyes without seeing the lights."

Undoubtedly one of the reasons that the Holmes series has drawn such a crowd in America is because of the brilliant Jeremy Brett. In the hearts of the most ardent Holmes fans, his only close rival is Basil Rathbone. Goode is aware of the charisma of this consummate actor and takes a bit of time with his close-ups. Said Goode, "When I go on survey, I tend to light sets, not peo-

ple. I do a few drawings and keep a few notes. Then, when I go to rehearsal in London – we nearly always get the advantage of going to rehearsal, just to see a runthrough – I still keep an open mind about it. When I pre-light, I light the sets first. I am aware of where the action is going to take place. But still at the end of a prelight day, I don't think about the actors or the actresses or where they are going to go.

"Then on our first morning, we have a quick rehearsal before they go into make-up and we see exactly where they're going to go and what they're going to do. I just put in a few little keys to pick up those angles. But when we get to the close-ups, I do add a Pepper or a Miser to get a little light in the eyes.

"I didn't used to, but after *Brideshead* I went to *Jewel in the Crown* and when I had to recreate the hard light of India in the studio, I added the little light for the eyes. Now, when we do our camera rehearsal, Jeremy is anxiously waiting for me to produce that light. He'll start looking around for it. He knows it's important."

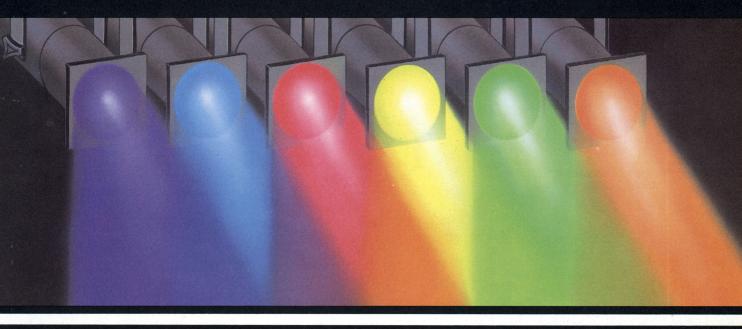
One of the joys of watching an episode of Sherlock Holmes is the exquisite use of locations. They present their own problems and Goode has developed some interesting solutions. He illustrated with the following example: "We shot in a beautiful stately home in Cheshire. It was a night scene, but we were shooting in the day. I had to box off a lot of the windows. They were very tall 10-foot windows - all boxed off with small lamps inside so that you get a sort of simulated moonlight through them. Again we had candelabra and small candles around - plenty of them. But to actually get the bounce light that you need to lift the set - to give me something that people could see on television - was difficult.

"In a stately home, you cannot put a lot of light on pictures or paintings. The owners won't have it and I understand that. You can't fix anything to

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walls. Generally the walls are so far apart - 30 to 40 feet - that you can't bridge them with anything. If you could bridge it, you might push the bridge through the walls. So I've made...you know an old fashioned fishing rod? Well, if you can imagine it within the hands - I've made a sort of swinging arm and it has a knuckle where your hand would be. It has a 14- to 16-foot scaffolding pole that shoots off the end of the knuckle. I've put a half-dozen Misers on it and I can get it right out into the set to give me a few little back lights. Again, I run it all through faders. There are all sorts of little pieces of equipment I've made through the years," Goode said with a sly smile.

wenty episodes, with four yet to come, and Goode denies that the different lighting cameramen got together and devised a style. They all do things their own way. Yet even Goode admits there is something a bit uncanny about the look of the series. "What's come out of the Sherlock set is jolly interesting. I sit home and watch and even when I know it's my own effort, in the end they all have something similar. I think that is to the credit of the artists. Your eye is taken by them all the time. At least it is for me - especially with Jeremy Brett. You're not aware of all the work you've done - little inky dinkies on pictures on walls – a little filler to make a nice natural light come off a wall light. They are things that you create all right, but I mean, my Mum doesn't notice things like that."

One of the things that has kept Ray Goode at Granada all these years is change. He likes change and being "on staff" gives him the opportunity to do a variety of projects. He finds it therapeutic. "I like to do gardening programs," he insists. "If I can get a run on gardening programs, I jump at it. To me it's relaxing. It enables me to work with a tiny crew. I get to travel around this country - last year I went to Italy. I come back revitalized. I don't look upon it as a downgrade. I get to light and operate – and if I thought I could never look through an eyepiece again and not be able to operate my own camera, I wouldn't be happy. I don't get to operate very often, but if the work permits and it doesn't slow them down, then why not? That's the most exciting part of making a movie – looking through the viewfinder."

He sums up his lighting style with a charateristically simple "I like to be careful about my sources," but he also wouldn't mind a bit of freedom - a little change. "I'd like to make a black and white movie sometime, where you don't bother about where the key comes from. I'd like to go away from the realities of what we now do. It would be quite an adventure to ignore the idea that the light must come from the window or wherever. I'd also like to do a space picture sometime."

But what of Holmes? Is The Sign of Four to be the end? Goode thinks that by rights, the whole affair has gone much longer than anyone could have imagined. "We have done 24 and we are planning another two-hour special - The Hound of the Baskervilles. I am amazed that we can do that. I'd have thought by now that the stories would have dried up. Seriously, when you get a script and read it – the actual story lines are pretty thin. But it's what goes into it from Jeremy Brett and Edward and everybody else's effort, isn't it? Actually at the end of an episode, I've sat in front of the television and thought, 'Well, I've enjoyed that....There wasn't a lot to it....It's just Sherlock Holmes, isn't it?''

Come, Watson, come! The game's afoot!

- Sherlock Holmes: "The Adventure of the Abbey Grange"





Photos by Mark Moore

Dancing Bottles Take New York

by Jean Turner

Seltzer bottles dancing around Times Square? Marching across the Brooklyn Bridge? It's all true, via the wizardry of commercial television advertising – and a concentration of creative talents.

The New York Seltzer ads which come to life on the screen these days are produced at Boyington Film Productions in Culver City, Calif., and combine the genius of a number of artists in this fairly nouveau field. The director/designer is Paul Boyington; George Merkert is executive producer; Justin Cohn is the animator and Toby Heindel, the cinematographer. Al-

den West supervised building of the miniatures.

Heindel talked about his experiences with photographing those miniatures in combination with the "bottle actors," as well as the live action, which introduces the fantasy dancing:

"The seltzer bottles were actual size – The New York Trade Center model was about six feet tall so the entire 35-building city miniature was big enough to fit on a table about 20' by 20' square. The bottles were photographed using stop motion animation frame by frame, with the motion control camera

moving through all the shots. We managed some beautiful camera moves coming off the bottles up into the clouds and down into Times Square for more dancing bottles. That's a sort of dream sequence of the spot.

"The janitor, actually Randy Miller, owner of NY Seltzer, comes in with his broom, sees the vending machine, slides in a quarter, punches a button and when the bottle comes out of the machine and after he has taken a swig, the camera literally dives down into the bottle and the dream sequence ensues. Here they are in Times Square with a saxophone, guitar, drums, a whole band – as well as a guy with a basketball and one with a surf board."

Heindel has not been doing commercials very long, but his credentials for special effects photography are impeccable, having derived from several years' experience with Industrial Light and Magic in San Rafael.

"Lighting the miniatures was a challenge," Heindel says, "because at first we had established lighting on the live action – and that was backlit and very smoky – romantic scenes, fantasy scenes with soft light, – very stylized lighting for the live action. Then when we went in to light the miniatures, of course the client wanted all his product labels to be very visible and wanted the glass to look good. That was certainly great for product photography, but from my angle it was a fight because I wanted it to look like live action.

"There are some things you can't do when you're doing stop motion photography over a four-day period. You can't use smoke because it moves around too much. You can't use a lot of back light and stylized lighting. Deep into the miniatures where you could see down into the streets, I could get a lot of blacks and deep oranges, dark areas, all supposed to look like magic hour. We used warm gels and a large blue panel of 216 gel to give a nice reflection on the side of the bottles.

"In the area where the

bottles work and dance I had to play more white, unfiltered light to get the natural colors from the bottles. I couldn't color the light much because painting orange light on blue bottles changes the colors to mush. For product photography you have to use white light if you have lots of colors in the products, so you revert to neutral lighting. Therefore, in the area of the bottles, the lighting is flat. However, I was able to get high contrast down the streets of the set and that helped."

Incandescent lighting with mostly 5Ks and one 10K, and a lot of small units, such as inkies buried behind miniature buildings, provided the main sources of illumination for the set.

"Sometimes we used small pieces of mirrored plexiglass into which you can bounce the light," Heindel says. "You can use one 5K, mount mirrors on armature wire (or anything that can be moved) and bounce reflections back into buildings and cars. On a street scene the light's very polluted, it tends to be spotty and full of reflections, and that gives a sense of lots of buildings across the street with light bouncing from their windows into little areas, making pools of color. It's a more confusing kind of light, not all coming from the same direction, and breaking it up usually gives a lot of depth to a miniature."

There were cars moving through some of the scenes, pulled by cables on stepper motors controlled by the computer that controlled the camera. It was all repeatable so the shots could be done over if necessary. "The scene was meant to have a stagev sense, therefore the lights are all on in the buildings even though it is still daylight. It all plays so much better that way," Heindel explains. "We buried what are called 'bright sticks' inside the models of the buildings fluorescent lights with a nice bluegreen shade. We lit a cyc painting behind the miniatures with blue and orange - it was also painted with blue and orange, but I augmented the paint colors by adding extra blue gels on the lights and



orange gels on the bottom cyc strips to saturate the color."

Heindel continues: "We use a Mitchell, Fries conversion, a good steady camera for effects work. It has a stepper motor so it is able to run in unison with the computer axes. The camera is controlled by the Tondreau system, a computer device which runs the camera in sync with the movements. The frames are divided into motion pulses, linked with the computer terminal. George Muhs did the programming.

"My gaffer, Mark Cane, did a great job along with Randy Wyatt, who is our key grip. We used Eastman 5247 for the miniatures because of the grain quality, and a high speed stock was not necessary. We used 5295 on the live action."

The miniatures had to be composited with another element, an oversized seltzer bottle which was about three feet tall with an opening in the neck that was wide enough to accommodate the lens.



Above: Justin Cohn and the miniature set. Left: Animated characters in action.

"We needed to stick the lens inside the bottle so it felt like we were traveling down through the neck of the bottle. We got a special extension from ILM to accomplish this, so that it would appear as though we were going right into the liquid."

"To get inside the bottle where all the little pop bottle characters appear, Toby programmed our motion control system to move the lens through the mouth of the overscale bottle," explains George Merkert. "He then filled up the

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overscale bottle with milk and repeated the exact same camera move to create a matte for that move.

"The liquid New York Seltzer inside the bottle was shot by filling the overscale bottle with carbonated water and submerging the lens in it. The bubbles were created by shooting into a water tank rigged with an aquarium bubbler," Merkert continues.

"The pop bottle characters were actual scale. They were built by cutting the tops off real NY Seltzer bottles and then attaching those tops to bottoms made of plastic. Little arms and legs made of steel and jointed with balls and sockets, and then covered with rubber, were attached to the fake bottoms. There were 16 of these characters."

Justin Kohn did the character stop motion animation for each frame. It took 216 frames to move the parade across the Brooklyn Bridge. "It took about 15 minutes for Justin to position each bottle for the next frame. So it took four days to create that sevensecond sequence," Heindel explains. "Dancing through Times Square took an equal length of time to shoot because the moves had to be adjusted for each frame. A very arduous task - and he had 16 characters to change each time. He had to keep in his mind the last movement of each character in order to make the proper movements for the next frame. When Justin climbs up on that table to do that work, he is deep into a meditative state. You don't talk to him. He remains undisturbable until it's over. Lighting miniatures takes a lot of patience, but it is nothing compared to what is required by an animator.

"The camera also moved during each frame of exposure, which put a little blur into the action, and that is why, in addition to the excellent lighting and animation, the characters seem to move so smoothly," Merkert adds.

In the on-going battle to grab the consumer's attention, more and more creative challenges are being met by limitless imagination and filming genius, of which dancing bottles are only one example. \triangle



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Camera Adventures with Magnum, P.I.

by Nora Lee

Thomas Magnum's adventures as a P.I. – that's private investigator – were chronicled by several cameramen, but for the last three-and-a-half years of the series, John C. Flinn, III, ASC was behind that camera making memorable television. This year Flinn was nominated for an Emmy for his work on the segment titled "Unfinished Business."

One look at Flinn and you can't help thinking he's really Selleck's double, not his D.P. – that's director of photography! He's definitely got a Selleck look, right down to the mustache. That probably explains why he got started in the motion picture business as an actor in 1964. Between takes, he found himself drawn to the camera and he started watching what the crew did and how they did it. He got work as an actor on such shows as

Get Smart and *Gunsmoke*. In a bizarre twist, he later worked camera crew on those same shows.

Bill Widemeyer, head of the camera department at Columbia, gave Flinn his first shot as a second assistant. As Flinn puts it, "Ever since then I've been on the road." He rose through the ranks under the tutelage of such cameramen as William Fraker, ASC, Robert Morrison, Richard Rawlings, Sr., ASC, Ted Voigtlander, ASC, Robert Surtees, ASC and Monroe Askins, Sr., ASC, to name only a few.

Flinn moved up to director of photography on a Movie of the Week called *The Flame is Love*, which he shot on location in Ireland. Since then his credits have included the last season of *Hawaii Five-0*, three years with *Hill Street Blues*, many MOWs and *Magnum*.

P.I. A life in the "industry" was probably inevitable. It's in his genes. His grandfather, John Flinn Sr., was vice president of Cecil B. DeMille Studios an his father, John Flinn Jr., served as director of publicity and advertising at Columbia Studios for 25 years.

Sometimes talking to Flinn seems like talking to the Hawaiian Chamber of Commerce. Other times it seems like talking to Tom Selleck's press agent. But in both cases Flinn is sincere. He really enjoyed the time he spent in the islands and more than that, he loved working with the people involved in Magnum, P.I. - Selleck not the least among them. "Tom Selleck is a treat. He is a professional and he made it very pleasant to work on his show. When he became producer, I saw it as a real advantage to me. He was very interested

in the look we were trying to get – that special look for that special show. We never wanted to look the same twice. He understood that," explained Flinn.

What's it really like to shoot six days a week on a top-rated series for three and a half years? Flinn thought "it was paradise." Perhaps, but it was also a lot of work. Hawaii isn't Hollywood and there isn't the endless array of support personnel just a phone call away. Stage One, on the island of Oahu, was the first and only sound stage to which the company had access. "We packed a lot into our one little stage. When we could, of course, we used local interiors and sometimes, when we couldn't tie a place up for as long as we wanted, our guys would build a reasonable copy of it and we continued shooting on stage," Flinn explained.

Stage One was home to the interior of Magnum's guest house and the interior of the Robin Masters estate. It also was home to the mock-up of T.C.'s helicopter, an occasional boat, and anything else that was needed and unavailable on location. Each show had a higherthan-average shooting schedule of eight or nine days. Said Flinn, "Most of the extra time was because of weather. We never knew what the weather would do and there were times we would be in the middle of shooting some place and it would be absolutely beautiful. Suddenly, it would just start pouring. We stayed on one location for three hours once, waiting for the rain to stop. We were stuck. We didn't have any of our interior sets ready, so we had to wait it out. It did get beautiful again and we finished our day's work. That kind of situation would drive a lot of producers and production managers crazy."

But Flinn had only kind words for the producing team on *Magnum*, especially supervising producer Chris Abbott and co-exec Charles Johnson. Prior planning is essential to a smooth operation of a weekly television show and the producers included Flinn in preproduction meetings and actively sought his input.

Because Flinn and his crew were so far away from the nearest rental house, he chose his camera package and film stock



with care. "I always use Panavision cameras – Panaflex, PanaX and PanArri – and I used Eastman film. I always have since I became a director of photography. I switched off between 5247 rated at about 64 and 94 with an ASA of 800 and 250. I used all Panavision lenses. I like the 5-to-1 zoom and used it a lot. I also like flat lenses. We used a whole range of them from a 14 or a 17 to a 4-inch flat lens.

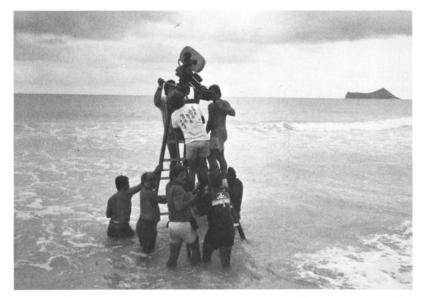
"On the B camera we often used a 25-to-250mm lens. I would trade off between flat and zoom. I don't like the look of a

Opposite page:
Crew works
around the famous
'McMasters Estate!
Above left: Flinn.
Below: Selleck is
the center of attention surrounded by
crew members
Herb Furuya,
Michael Pang and
Bill Witthans.



Top: Magnum crew sets up for a romantic shot using shiny board and water reflections. Selleck stand-in at far right. Below: Crew members Doug Olivares, Denny Hall, Witthans, Rick DiNieri, Skip Burnham and David Ahuna, with Flinn at the camera, try to keep it out of the water.





straight zoom. We tried to make our movements smooth and steady. The less aware of the camera you are, the better I've done my job. I want things to flow with feeling. I want the actors to tell the story, not the camera. That's my philosophy."

As a result of the isolation Flinn relied heavily on his crew's loyalty and their ability to work as a team – always one step ahead of the rest of the company. Perhaps for him, the most important part of his tenure on Magnum was "working with a crew that cared."

"It's hard to believe what a family our crew was," Flinn emphasized. "Not just the camera crew. For example our greensman, Clarence Maki, was terrific. He knew that I loved pretty, colorful flowers and he understood how they could enhance a room or even an exterior. And those times of the year when things weren't really blossomed out in an exterior, he would add just the right touch. He would come to me and tell me what I wanted. He knew. He knew me that well. The island is so green that I liked to bring in reds and pinks and blues. He understood that."

He continued, "Because I was doing the shows back-to-back I had to depend on my two best boys, Doug Downworth and Pat Murray. They would go out location scouting with the director of the next episode while I was finishing up the current one. That kept us

rolling pretty good. They knew my style and my ways. They would come back with pictures of the location and a diagram. We would know in advance what time of day we would be shooting. With the diagrams, I could lay out my basic rigging. That way we could go right from the stage to location and be ready to shoot. It was just a matter of plugging in.

"We had to keep moving. It was a tight schedule. And because of the size of our production we didn't have time to play around or experiment much - we had to go," said Flinn. One way to add speed and efficiency to a crew is to have a telepathic gaffer. "Bobby Chaldu and I have been together since Hill Street Blues. He knows me like a book and he and I look at each other after a rehearsal and shake our heads and do it. He knows what I mean when I say 'Let's give it a little more there . . . and a little *oomnf* over there . . . and I want it down in there."

One of the little joys of returning to Hawaii to shoot *Magnum* was meeting up with old crew members from *Hawaii Five-O* days. Among them was David Ahuna, Flinn's key grip. "There were quite a few of the local guys that I had worked with before and it was just like old times," said Flinn.

One absolutely indispensable part of his crew was his dolly grip, Bill Witthans, and his faithful dolly. "We did use a lot of dolly track on the show. Quite often we'd use both cameras on dollies at the same time. Something like that has to fit the rhythm of the scene. We even used them going in two different directions. It was a fastpaced show and the dolly made it easier to keep things moving. What we lacked over there was a crane. We couldn't get one over from the mainland for just one or two shows because of the expense. That would have been a luxury. The things I could have done....

The two men closest to Flinn were his operator, Pat McGinness, and his first assistant Denny Hall. Flinn has known McGinness since his days on *Hill Street*. He

began as a second assistant with Flinn and two years ago, while on Magnum, McGinness became his operator. "Pat has a good eye. He works with me on my compositions and once we're rolling, he makes sure it's all there," Flinn said.

Assistant cameraman Hall had the dual responsibility for the equipment and the second assistant and the first assistant on the second camera. "We have an unbelievable amount of equipment and if something breaks down, we aren't five minutes away from Hollywood. It's his responsibility to keep everything running in tip-top shape. Sometimes it seemed like a thankless task to him, but never to me," said Flinn.

The crew for Magnum, P.I. couldn't be complete without a helicopter pilot. "We did our own aerials. Our pilot, Steve Kux, was one of the best pilots I have ever worked with. He could make moves with that helicopter that dolly grips would be proud of. He thought like a cameraman. He would hover about 20 feet over a two-shot and he could feather that helicopter back and reveal cliffsides and an ocean just as smooth as if he was on wheels - it's pretty dramatic. He's a perfectionist and he knew when a move didn't work.

"We used a Tyler mount in the helicopter and a lot of times we hand-held. Sometimes that was faster and easier - for instance, when we wanted to shoot through the bubble to simulate the actor's POV. A hand-held shot made it seem more real. We could include a hand or foot in the shot and it would cut better with the helicopter shots we did on stage with our actors."

Magnum, P.I. gave Flinn an opportunity to use everything he had ever learned about lighting and to invent a few tricks of his own. Hardly a week went by without breathtaking helicopter shots, stunt work, or car chases. At the same time there were tender moments, dramatic climaxes, comedy relief and even a sultry sex scene or two. Flinn enjoyed the challenge, but in his words, "a challenge is

merely an opportunity...."

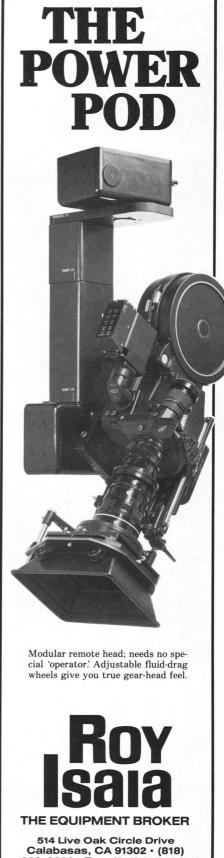
The harsh tropical light was a real opportunity!

Flinn gave most of the credit for the Hawaiian exteriors to Mother Nature. "Shooting exteriors in Hawaii – it's pretty hard to miss. It's so beautiful there. Sometimes we don't want it beautiful and it's hard to tone it down. Other times we have to enhance the light, because not every day is a beautiful sunny day. I know, it's hard to believe, but it's true. We might be stuck with two overcast days in a row. And the scenes we shot two days before have to match what we're doing now. It took a lot of tricks and fooling sometimes, but we got it done.

"The problem is tropical light is a lot hotter than light here in the L.A. area. The intensity of light in Hawaii is at least 1.5 times what it is here. We haven't got a natural filter in Hawaii. We don't have haze or smog to help balance the light. It's so harsh that to balance skin tones and keep from burning up actors' faces, we have to use a lot of silks and doubles. Sometimes we've covered a courtyard that's 40 x 40 with a silk to cut down the light. You have to be aware that the contrast can be tremendous. And you can't necessarily balance to the background," he explained.

"A lot of times I will use a 216 silk on an arc and use that as a soft key on exteriors. The important thing is to get the light as soft as I can get it so the actors don't have to squint and yet try and balance to the background. There have been times when I have put a net behind the actors to cut down the background."

In the tradition of cinematographers from the Golden Age, Flinn is particularly careful with the women he photographs. "I always use silks to keep their eyes from turning into dark circles and to eliminate hard shadows. I do use filters - I vary from very fine nets to corals to fogs and double fogs. With ladies I often use Mitchell diffusion. I like to assure them going in that they won't have to worry about how they look. I love to pho-



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tograph women and I want them to look right."

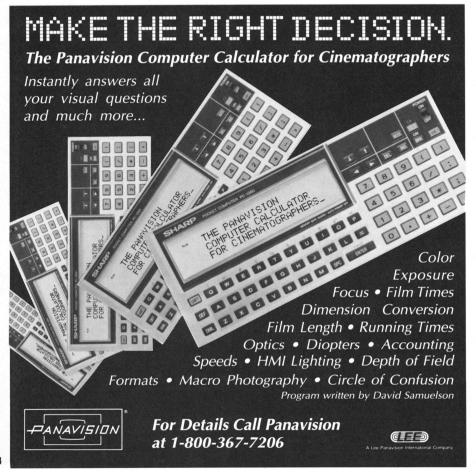
Still Flinn isn't convinced that there is a specific style that he can identify in his work. "I think I have a style, but I don't know how to explain it. I don't like to repeat the same look. My style changed with each segment. This is hard for me to explain, I tend to work from a feeling... for example, a lot of Magnum was light comedy and my style would reflect that - we made it bright and happy. When we had dramatic scenes, that's when I really had fun. I could introduce a dramatic look with my choice of lights.

"I love lighting for the mood. Let's say we're in the kitchen and it's bright and cheery and then there's a phone call. Thomas goes out of the kitchen. It's late afternoon. There are streaks on the wall as the light comes in the window. The phone call brings Thomas down. It's an upsetting situation. Let's say he's walking with the phone and all of a sudden he walks out of the light. I'll let him go dark. I just let it play. So in one little sequence we've gone from happy to very dramatic.

Flinn's experiences as an actor have helped as a director of photography. He understands the insecurities and feeling of helplessness that can wash over you when you are in front of a camera. His style of lighting for a feeling or mood seems to help the actors get into their roles. "I want to do what I can to help him or her to really feel good about what they're doing. I want to let them know that I know what it's like to be out there and that I'm there for them. So I take it as a compliment when the actors tell me that the set looks just like they thought it would."

After three and a half years - 66 episodes - there were some moments that stuck out as small triumphs in the weekly rush to get a show on the air. Flinn talked about how he met some of the daily "opportunities":

"For one episode we recreated a Viet Cong camp on the little back lot of our one little stage.



We were stuck on the set because of the weather. Thomas was after the guy who set up the death of his wife and daughter. We had to do a flashback sequence with a POW. It was supposed to be really hot in the jungle, so we had a very hot light (500 footcandles) coming in through the doors and a really low light (20 footcandles) on in the interior of this hut. Everybody thought it was an exterior shot. It 's great to be able to say it was all done on the stage!"

About Selleck: "He was very interested in the look we were trying to get—that special look for that special show. We never wanted to look the same twice. He understood that."

Then there was the show Flinn filmed at sea. "We spent 8 days on the S.S. Constitution, a Navy aircraft carrier. We scouted the ship before going out so the crew would know what we were up against. We took quite a bit of dolly track and used a lot of hand held cameras. For the gentlemen on the crew who had never had this kind of experience, it was very exciting. I wouldn't want to do it all the time. We had a very high budget for Dramamine."

And as a salute to the Western – "We did one two-hour special on the big island. It was a cowboy show and we had a lot of fun with that one. It brought back memories of *Gunsmoke*. I love Westerns. And if there could ever be another John Wayne, his name is Tom Selleck. He prepares himself so well for everything he does. The guy can ride a horse like you can't believe!"

Perhaps one of the very best episodes was called "Going Home," directed by Harry Harris. In it Magnum goes back to Virginia for the funeral of his grandfather. One of Flinn's best illusions was creating Virginia in Hawaii. "There

were only a few second-unit shots of driving down the streets of the town that were actually done in Virginia. We found a colonial style house in Hawaii that didn't have a palm tree in the front yard, which was tough. It came in very handy to have a greensman who knew which plants were Hawaiian and which plants were Virginian."

Then there was the fun factor. From Flinn's description it was very high. For instance, though Flinn blushes when it's mentioned, there was an episode where Thomas was involved with a hooker. Her pimp's name? The Mighty Flinn. "What could I do?" said Flinn redfaced. "I tried to pay them money to get it out of the script! It ruined my career. I was stuck. But for the record, there is no truth to it. Believe me! I did receive cards and letters on that episode...

"Things like that happened on our show a lot. Thomas is one of the funniest guys you could ever know. For instance there was a scene between Magnum and Higgins and Thomas was outside in the hall. Thomas would knock on the door and when Higgins opened it, Thomas was nowhere to be found or he'd be on his knees – with his knees in his shoes – looking like a midget!"

And finally, on Magnum, Flinn was given the opportunity to direct. He did quite a lot of secondunit direction plus directing two complete episodes. One episode opened the final season and he was able to work with one of his former mentors, Richard Rawlings, Sr., as his director of photography. Flinn, then, has had the unusual opportunity to view the world of television from in front of the camera, behind the camera and beside the camera. He is currently completing work on a new MOW, Police Story, but it will be hard to top his experiences in paradise, just as it was hard to say good-bye when the last episode of Magnum wrapped.

John Flinn was spoiled and he knows it, "What can I say? It was the time of my life." \triangle

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Photos by Bill Finlay

Live Sports Broadcasts Require Quick Eyes

by David Heuring

Baseball is a game of tradition; television is not. While the game of baseball has changed little since the beginning of the century, the business of television coverage changes constantly. However, Mark Wolfson, the producer/director of KTTV's acclaimed Los Angeles Dodger baseball production, has carved out his own tradition of sorts in the world of sports television. He and his telecasts have garnered six Los Angeles Emmy Awards, including Best Sports Series, and 25 nominations. Four of those Emmys and 18 of the nominations were for Dodger baseball. Despite a small budget and crew, certain aspects of Wolfson's baseball telecasts compare favorably with the much more extravagant network telecasts.

Wolfson, a 20-year veteran of live sports television, attributes a good portion of this success to the man in the booth. Vin Scully is widely recognized as the best baseball announcer in the business. "There is no one who is as good at working with the medium," says Wolfson. "You never have to worry about him watching the monitor, and coordinating his part of the telecast with ours. When a pitcher begins to warm up in the bullpen, for example, many announcers simply report that fact over the air without regard to television. The result is that we end up chasing, getting things up on the screen eight seconds after they've been talked about. This makes for a disjointed telecast. With Vin. and the coordination of our stage manager, we're always in sync. When a pitcher gets up in the bullpen, Vin's aware of the fact that he'll get it on the screen quickly. He's cognizant of our efforts, and that makes all the difference in the world. Of course, he has a wonderful knowledge of the game. He's simply the best."

Wolfson's four man core crew travels to each National League city, where they hire on local equipment, cameramen, videotape operators and crew. Since the majority of the crew changes from series to series, Wolfson's core crew has to be doubly efficient. These members bring an in-depth knowledge of baseball to their jobs, along with their technical prowess.

"My stage manager, Tony Jacobucci, facilitates that unity between the booth and the truck. He knows the faces of all 624 major league baseball players, so when there is a change coming out of the half-inning, he lets me know. I can then tell Vin the sequence to expect on the screen, and he weaves the story. It's this teamwork that holds our telecasts together. Tony has an incredible memory, and anticipates well. Even though we have six cameras, I can't see everything that goes on on the field. He is a valuable extra set of eyes for me. His other duties include preparing Vin for the game and making sure the booth runs like a well-oiled machine. Many of my contemporaries, when they go on the road, have to hire an AD. This person is usually the least experienced crew member, and has limited responsibility. Instead, we treat this as a very strong position, and I think the results are well worth it."

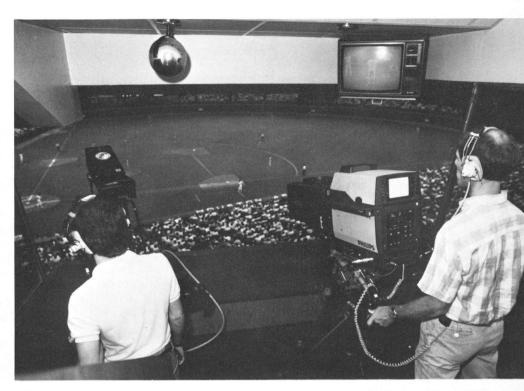
The third member of the crew is Mark Reda, an associate producer. In the normal network setup, his responsibilties would be divided among three crew members. Reda operates, coordinates and does the research for Chyron, the titling device which flashes graphic information on the screen, for example, the score and the count. All crew members, including the announcers, occasionally contribute revealing statistics and ideas for the more involved graphic displays, which are interesting and informative additions to the telecasts. "The Chyron 4100 EXB is a pretty standard titling device around the country, and Mark carries pre-formatted disks with him when we travel," says Wolfson. "He can walk into any truck in the country that has a 4100, sit down and be ready to go. The Chyron really helps us set up and follow the storyline of each particluar game.

"My co-producer is Bill Finlay, and he stays on the telephone with the

studio through the game, and puts together the highlights package for the end of the game. Most of these guys have worked with me for a long time now, and with Vin. Ross Porter and Don Drysdale, we have a good team for telling the story of the game. Inconsistency is a major source of problems, and with a new crew every few games, you have to very careful. There are day-to-day variations in the skill levels of the camera and tape machine operators. It's very important to familiarize them with what you expect in certain situations. Of course, the whole nature of live sports is chance, but there are some predictable situations. I travel with responsibility sheets so that it's clearly laid out for the people I work with. For instance, on a home run at an away game, the low third base camera gets the guy who hit it, and the low first camera gets the pitcher, automatically. A good operator appreciates having that information in advance."

Wolfson's six camera layout follows the somewhat standard placement for baseball telecasts. The "high home" camera keeps the pitcher and batter at the top and bottom of the screen, and follows the ball after it's been hit. The "high first" camera, usually in the second deck on the first base side of the diamond, is a "shag" camera getting tight shots of the fielders as they chase down fly balls. The "low first" camera gets shots of the first base dugout, and righthanded hitters. A complementary pair shoots from the "low" and "high" positions on the third base side. The sixth camera is the center field camera, which covers 95% of the pitches. "The center field camera shot made baseball coverage," says Wolfson. "Back in the 50s, they only had high home and high first cameras. The center field camera allowed you, for the first time, to appreciate the battle between the pitcher and the batter, which is really the dramatic core of the game. It's well framed, there's a lot going on, and most importantly, you can see the movement on the pitch.

"Being a live baseball cameraman is one of the toughest jobs any cameraman has ever had," continues Wolfson. "Take the high home cameraman. He has framed a tiny pitcher at 12 o'clock and a tiny batter at 6 o'clock. The ball is thrown at 90 mph, and it comes off the bat at twice that. He's got to follow that ball. That's not like a cinematographer who cranks two wheels. A skilled high home cameraman runs his camera by a kind of body radar. He sets his eyes above the viewfinder, and when the ball is





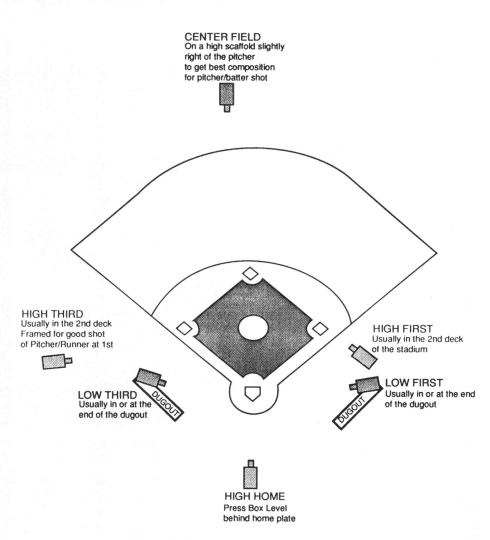
Above: POV of the "high first" or "shaq" camera, which follows the ball for a tight shot of the fielder making a play. Left: Mark Wolfson calling the shots in the production truck, during a telecast form the Houston Astrodome, Opposite page: "Low third" camera prepares to shoot announcer Ross Porter's pre-game interview with Kirk Gibson.

struck, he body-guides his camera into the zone where the ball was hit. Then he lowers his head into the viewfinder to sight in the ball. It takes a lot of skill and practice to be able to shoot from the hip like that."

Because baseball takes place in such a large area, Wolfson prefers to work with "a lot of glass". His normal equipment request includes 40:1 lenses for all cameras, but in cities with limited availability, the closer cameras can be fitted with wider lenses.

The most consistent source of problems for the crew, however, is lighting. While the dimensions of the baseball dia-

mond remain relatively constant, other factors change not only from city to city but from inning to inning. "Video's limited contrast range often makes lighting a problem for us," relates Wolfson. "In certain outdoor stadiums, there can be tremendous differences between shadow and sun, and these high contrast ratios can create big problems. In some stadiums, this problem is complicated by the artificial turf. Because the turf now gets Zambonied like a hockey rink when it's wet, a lot of the color has been stripped off. When the sun is very bright during a day game, the high home cameraman has a hard time following the ball



Dodgers Baseball Camera Assignments

Camera 1 - High Home

Follow the ball, though not so tight to where you lose perspective. Use the fielders to help guide you to the ball. Also, various wide shots at the end of innings. Get crowd shots after cut-off from home team home run. If you hear the announcer talk about the crowd or the ballpark, shoot wide left and prepare to pan across the field.

Camera 2 - High First

Left side iso – shortstop or third base. Also, the occasional right-handed hitter if blocked low or needed. Shoot the pitcher with a right-handed batter up, especially after throw-overs to first. Dugout on third base side, outfield shags, the second runner on a clean hit, and appeal plays at first and third. Infielder hero shots as needed. Also, bullpens and the third base on-deck circle.

Camera 3 – Low First

Right-handed hitters — shoot mid-waist for possible graphics, but be head-to-toe before pitch arrives. Shoot the pitcher with left-handed hitter up, and IMMEDIATELY AFTER A HOME RUN. Also, the lead runner with a left-handed hitter up, infield hero shots (when not assigned a runner), and dugouts. Bring off pitcher to first base dugout after his inning. Various crowd and color shots when available (especially kids.)

Camera 4 - Center Field

Pitcher/batter shot. Reverse high home – iso'd in VTR Z. Occasionally bring the next hitter up to the plate. The crowd after a home team home run, and other color shots when available. On a walk, follow the batter to first.

Camera 5 - Low Third

Left-handed hitters — shoot mid-waist for possible graphics, but be head-to-toe before each pitch. Pitcher with a right-handed hitter up, and the lead runner with a right-handed hitter up. ON ANY HOME RUN, SKIP YOUR RUNNER(S) AND SHOOT THE HOME RUN HITTER. Also, left side infield hero shots (when not assigned a runner). Dugout shots, appeal plays at first and third, and available and appropriate color shots.

Camera 6 - High Third

Right side isos. All ground ball plays at first — iso'd on first baseman. Shag flies like high first, if I use camera 2 live, you are iso'd. Occasional left-handed hitter if needed. Follow the hitter to the base where he winds up. Also, the first base dugout and right field bullpen, appeal plays at first and third. On steal situations from first, shoot pitcher and runner. If the runner steals, follow him. If it's a hit — go to the runner after attempting to shag. If it's a ground ball for a potential double play hit to shortstop or third, go to first base for second out. If the ball is hit into your field of view, follow the ball for the entire play.

against the light background.

"In a domed stadium it's much easier for us. Personally, I don't like indoor baseball, but for televising purposes, places like the Astrodome are wonderful. It's nicely lit, all even, and the players look good. The light is spread well, with no dead spots. The video operators have it relatively easy they don't have to worry about changing the white balance to compensate for changes in light. On the other hand, a 5:30 game at Dodger Stadium is a video man's nightmare. As the sun goes down and the light keeps changing, he has to continually take the camera away and rebalance. Then they turn the lights on, which is another factor. Once the lights take over as the dominant light source, it gets a little easier."

Related lighting problems present themselves when the crew shoots the introductory pre-game segments. A typical day game problem situation places Scully in a darkened booth, with the sun-bathed stands as a background. "We may have a five stop difference between foreground and background," Wolfson laments, "which video will not tolerate. Budgets preclude having a grip truck, so we can't do anything with the background, or bring enough comfortable light into these small booths to bring up the foreground. We have small, portable 1K and 2K lights, and the only way to get the light up to a reasonable level is to put them up real close, which just fries Vin. I leave the light off until just before we go on, and then he often has trouble seeing or winds up squinting. The whole situation is just awful - it's the major weakness in our type of live sports broadcasting. This is definitely one area where the networks have it over on us - they bring out scrims and cutters and all the things it takes to make the talent look good."

The broadcasting equipment Wolfson employs on the road also varies from city to city. The ideal equipment package includes a Grass Valley 1680 switcher, an Abekas A-53 digital device for altering the screen image (moving faces to fit graphics, etc.), and the Chyron 4100. Most important is the switcher, through which all video elements are controlled and manipulated. "In the truck, I sit before a bank of anywhere from 20 to 40 monitors, which display all the sources," explains Wolfson. "There's one for each camera, one for each tape machine, and one for each of the two pages of the Chyron machine. There's two for a 'still store device,' a system which allows us to archive



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Wolfson has built his 20 years of sports broadcasting experience upon a foundation of formal cinematography and drama training at Southern Illinois University. Through the years, he has developed strong opinions on how to best present the vast parameters of the game through the inherent size limitations of the television screen. His love for and understanding of baseball become apparent in his theories. He explains some of the subtleties and secrets that set his work apart: "One of the ways that I differ from many of my contemporaries is that when the ball's not in play, I like to shoot the game tight. Most importantly, I want tight shots of the pitcher and batter as they prepare and muster their concentration. Most of baseball is a one-onone battle between these two contestants. The whole game hinges on how well the pitcher does as opposed to how well the batter does, so you want to see these guys close up. That's how you build drama, and then the game supplies the climax. Television is basically a close up medium, and for the most part, once the ball is put in play, you have to back out to show people what's happening. When I take my batter shots, the first time I'll take a waist shot, because I have to get his name and statistics into the lower third of the frame. But after that, I tell my cameramen to go in tight. It doesn't always work that way; some facilities can't supply me with the lenses I need. But in general, tighter is better.

"Also, I'm one of the few people who use a high third camera. I think it's a very important camera, and this is the reason: The most common close call in baseball is the ground ball play to first. What the networks do most frequently is, after the ball is hit, cut to high home. When the ball is fielded by, let's say, the shortstop, they cut to the high first camera and follow the ball down. In other words, the ball moves from the top of the TV screen to the bottom, as the cameraman tilts down to follow the ball. On a close play, the ball arrives late, and because they don't use shuttered cameras, it's fuzzy.

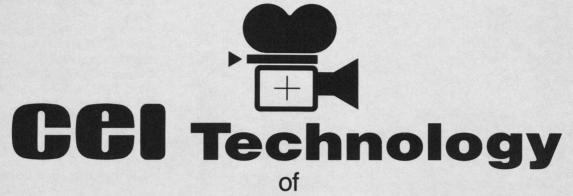
"What I prefer is to lock my high

third camera on the first baseman. Since he is not moving, and because of the angle, when you see the replay there is no doubt as to whether the runner is safe or out. Using this method, I'll catch an umpire making a mistake or looking good once every two or three games. I feel this shot makes the replay definitive. My other complaint about that cut to high first is this: many directors will take the shortstop on high home, head to toe, fielding the ball. The next shot has the shortstop, head to toe, from high first - it's a jump cut. There's not enough difference between the shots to make the cut worthwhile. That's just my personal preference.

"Many directors, when they take successive shots of the pitcher and the batter, like to use the low angle. Those are nice shots, because the low angle is eve level, and if you can get in tight, it's terrific. But think about this: If a right-handed hitter is up, and you're shooting his open side from low first, he's now looking screen left to screen right. Say you're going directly from that shot to a shot of the right-handed pitcher, and you're going to use the other low camera. That's the low third camera. which leaves the pitcher, again, looking screen left to screen right. These two shots in a row rob you of the unconscious impression and tension of these two guys facing each other. You're shooting a facedown, and in the interest of low angles, these guys are facing the same direction on the TV screen! So when I'm trying to establish that tense relationship between the pitcher and the batter, I'll use low third to shoot the hitter and high third to shoot the pitcher. This way, the successive shots show the hitter and pitcher facing each other. If I've got enough glass, the only disadvantage is that the pitcher is shot from that higher angle. But we capture that impression of a face-off. The networks, of course, will often put in a low home camera, which works either way.

"People often ask me why I don't use the high home camera more often on pitches, for a change of pace from the center field camera," continues Wolfson. "My answer is that, quite frankly, it's a terrible camera angle. The pitcher is at the very top of the screen, the batter at the bottom. There's a great big hole in the middle of the screen. Why intentionally give the viewer a shot that doesn't give the best angle of the pitch and the hitter's reaction to the pitch? If I were a movie director, I wouldn't use that shot, so why should a sports director use it?"

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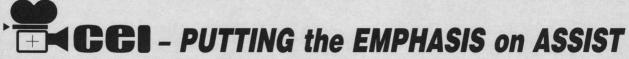
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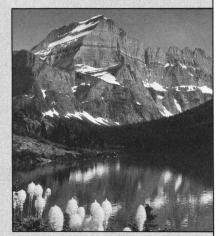
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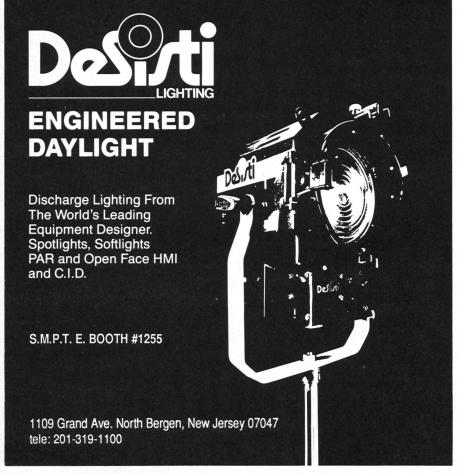


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The rapid development of video electronics and the recent financial appreciation of baseball telecasts have combined to make radical changes in the nature of televised baseball. Of course, when there's money involved, politics can't be far behind. Wolfson relates some of the recent behindthe-scenes changes in how a baseball game gets on the air: "Until recently, many games were broadcast through what's called a shared feed. Some American League teams still go with a shared feed, but you don't see it much in the National League anymore. Essentially, it's when the home team has their cameras set up, and the visiting team comes in and buys their picture. The visitors bring their own announcers and perhaps Chyron, and put the game on the air. I did my best to talk KTTV out of this, because obviously it takes away from any of the subtlety and booth-truck teamwork that we strive for. With a shared feed, Vin may be telling a great story about the third base coach while the primary feed is on some lady in the stands with a beer. Finances being what they are, it's no longer advantageous to take a share, so we do what's called a "side-by-side". This means that when we go to Chicago, the Cubs have their six cameramen, and we have six of our own, set up right next to each other. It seems strange, but it makes for a better broadcast back home.

"Of course, it can cause some problems. There's a certain unwritten practice called "inside-outside." This used to be more common, and I wish it still was. At Dodger Stadium, at the end of the home team dugout, the two low third cameramen are set up – one of our guys, and one from the visitors. According to "inside-outside," the home team cameraman gets the inside, unobstructed view of the home dugout, so he can get good shots of his bench. On the other side of the diamond, they're switched. so the visiting cameraman gets the inside and the good shots of his dugout. It works out well for everyone whether you're doing a game at home or away. However, with the politics involved, some television crews feel that in their ballpark, they should have both of the inside positions, leaving the away team to shoot all the way across the diamond to get dugout shots of either team. Of course, those crews are in jeopardy of having the favor returned when they come to Dodger Stadium. It's just too bad that

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some teams won't go for something that's so obviously mutually beneficial.

"Generally though, the increase in property value of baseball telecasts has been very helpful to me. Production value in baseball has increased fivefold in the last six years. Rights holders are renting more equipment, and they're using it well, so the competition is there. We try to look at it like a story. It's not a movie, but each game has its individual threads. For instance, if the Dodgers are playing St. Louis, the storyline might follow the success or failure of the Dodger pitchers in keeping the Cardinal speedsters off the bases. I do about 80 games, and some guys do a lot more than that. Once you start thinking of the games as the same it gets boring and you'll dry up. It can be a long season.

"There are those moments, though, that give the crew a kind of high. I remember one particular game this year in Pittsburgh. It was an important game, and the Dodgers were nursing a slim lead. The Pirates were threatening, and we had a split screen with Tommy Lasorda and the Pittsburgh manager, Jim Leyland, isolated to a tape machine. As the batter struck out to end the threat, Leyland's head sunk down in disgust and Lasorda's fists flew up in triumph. It made a great replay. Getting shots like that makes the difference," concludes Wolfson

With all the factors Wolfson keeps in mind during a telecast, and all the hats he wears before and after the game, through a lengthy season, one might think that he looks forward to rest and relaxation in the off season. Such is not the case, however. In a few weeks, after a stint in Korea directing Olympic diving, Wolfson starts the telecasts of the NBA's Los Angeles Clippers.

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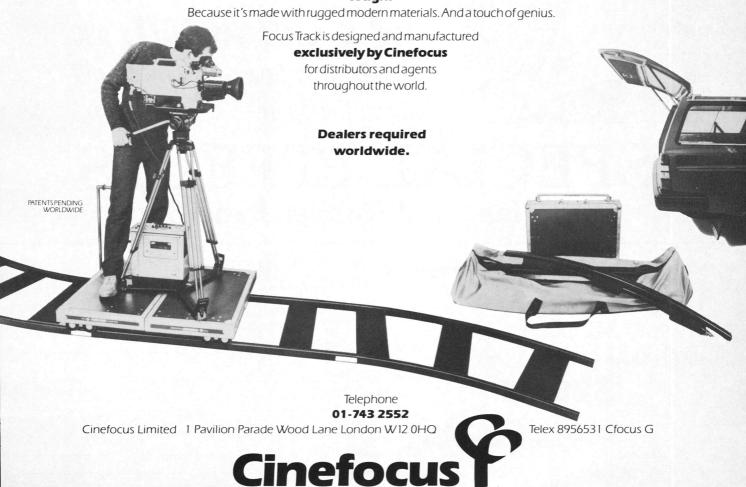
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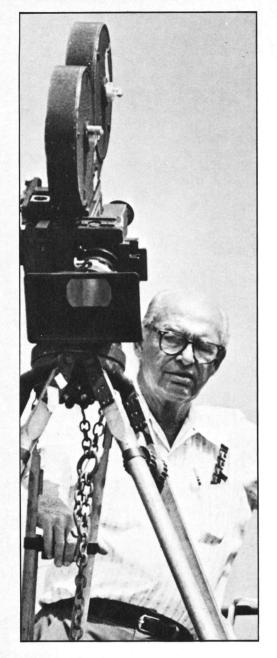
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Elastic Effects - New Optical Wrinkle

by Paul Mandell

Remember the Renault television spot several years back? A bright red car came around the bend. As it proceeded down the road in an S-shaped path, it streaked and stretched, assuming the proportions of a maxi-limousine. The "plastic car" was one of those unusual visual effects that, in the barnstorming days of computer-generated imagery, one simply took for granted as being of that ilk.

Savvy viewers may have scratched their heads. Was it a computer image? Or perhaps a slit-scan streak effect of the car, matted over a background scene? None of the above. It was an optical trick consisting of 1,200 split screens per frame of motion picture film. Believe it or not.

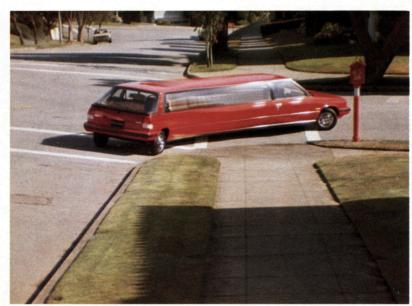
The elastic effect, as it is called, was conceived and developed by Eugene Mamut, an optical printer expert at R/Greenberg Associates in New York, who rightly states that "its commercial possibilities are endless." Using this technique. any moving object on regular production footage can appear to stretch, twist, shapeshift, or otherwise transform into an image that would have delighted the surrealist painters of the Forties. What's more, by applying this technique to a zoom-in or zoom-out on a stationary object, such as a magazine page or a title logo, the artwork itself can distort into soft swirling patterns - or disperse into hundreds of random segments and assemble itself magically, in the best tradition of an ADO effect. Except here, the illusion is composed directly on film resolutions, making it applicable not only to TV commercials but to feature films as well.

The idea of the elastic effect evolved in 1979, when Mamut first came to America. Slit-scan technique was something new to him; he had just seen 2001 for the first time, and streaked television logos were in their hey-day. When Jeff Kleiser, an effects layout man, showed him how to create slit-scan images on an optical printer, the wheels began to turn.

"In slit-scan," Mamut explains,



Left: The Renault
"S" turn: 1200 split
screens. Below:
Right turn: blur
stretches via 400
vertical split
screens. (Frame
blowups from
35mm film)



"the slit moves continuously, resulting in a continuous streaked image. I realized that if the slit *stopped* during exposure, the *shape* of the slit could be altered from frame to frame, resulting in a final image composed of a series of *discrete* frames. Hundreds of

different-shaped 'elastic mattes' could be introduced in the printer consecutively. So I thought, there are many possibilities that have not been explored."

Creating an elastic effect is an intricate procedure. Unlike slit-scan, nothing

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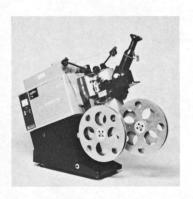
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200 to 1,200 hairline slits are generated on a computer, depending on the effect desired. The slits are then transferred to hi-con film stock, resulting in what is essentially a clear-core matte roll. The clear sections are nothing more than tiny hairline slits on black emulsion, one slit per frame, which change in position (and in shape, if need be), very much like an animated cartoon.

Normally in split screen shots, the matte roll is step-printed from head to tail with the original scene, awaiting a countermatte and another print run for a composite. An elastic effect is done differently – there is no need for a countermatte. The matte roll may consist of 1,200 slits. Like a cartoon, each slit is on a separate frame of the roll, in advancing continuity.

Frame One of the original scene is held in place on the printer, the *matte roll* is advanced frame by frame, and an exposure is made. So in reprinting the scene, each frame of the composite is exposed in 1,200 segments.

One printer head houses the hicon; another accommodates a print of, say, an object moving normally against a stationary background. In the case of the Renault spot, it's the car curving down the road.

As the car makes an "S," the shape of the hairline slits are changed from vertical lines to arcs, angles, and back to verticals. Exposures are made through the slits. At a pre-determined point, however, selected frames of the car's blur are repeated through a specific number of slits.

In other words, every frame of this scene (from the start to the end of the shot) is exposed through 1,200 hairline divisions onto new negative. But at a certain point, the printing is done out of "real time" – blurs on the car are "borrowed" from different parts of the footage and rephotographed through the slits in a stuttered arrangement.

Here's the trick: Because the road, the background, and the foreground objects are stationary, they are unaffected by the split-screens. If 400 of the 1,200 exposures are stuttered, the unchartered road, trees and sky will look static and seamless, because there is no motion in them. Only the *moving object* is affected, because the *blurred frames* become distended. Hence, the car becomes "elastic."

The Renault spot – a very com-

plex example of this effect – was still a future event. During the initial research and development, Mamut envisioned another whole series of circular, clear-core slitmattes. By selecting frames of the zoom action, taking them out of "real time," and printing them through the concentrics, the static image could be transformed into a rippling whirlpool.

Experiments began in 1979. Mamut used an ABC-TV logo, strictly as a test. The artwork was shot on an animation stand. As a favor, Judson Rosebush of Digital Effects generated the first set of "slit-mattes" (10 sets, 200 mattes in each set) on his equipment free of charge for the test.

Mamut did an optical zoom on the logo, and went one step further. Through a matte roll consisting of 200 horizontal clear-core slits (one slit per frame on the roll), the logo was printed onto raw negative. In other words, 200 horizontal exposures were made on each frame of raw negative. This altered image was printed again using another set of mattes vertically, for an added distortional effect. The zoom action was disassociated simultaneously, using the 'frame-select' procedure. The final composite showed an ABC logo that stretched and swelled in kaleidoscopic configurations.

"The test was done to demonstrate the possibilities of the elastic effect, what clients could expect, by using an entire series of mattes to change the shape of the original image.

"The interesting thing about this process," he adds, "is that you never know what the effect will ultimately look like. You have an idea, but it's always a surprise. Usually it is very beautiful."

The first experiments were contact-printed, using a machine with only one printer head. Eventually, on effects director Joel Hynek's suggestion, Robert Greenberg invested a lot of time and money in installing the CompuQuad printer – a 4-head Oxberry unit supported by a software program that could handle the most intricate compositing jobs.

The new optical bench, interestingly enough, was designed specifically for the production of elastic effects at R/Greenberg Associates. Extensive technology went into the creation of the software and hardware, enabling the facility to develop new industrial applications for this technique. Once the CompuQuad became an in-house item, myriads of clear-core slitmattes could be handled with ease. For



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Joshua Pines, a programmer in R/Greenberg's CGI department, began producing large sets of slit-mattes on a computer, far exceeding what had been done earlier, and had them transferred to hi-con film stock. He perfected a way of generating 1000 + super-clean mattes for a final image containing no perceptible split-screen lines.

In 1981, an ambitious title test was done for the film *Flash Gordon*. On the printer, Mamut used a computer-controlled "spin-lens" attachment, which rotated the image of the artwork per frame. The image was then reprinted through a film roll of concentric, octagon-shaped slit-mattes. This transformed the artwork into a geometric wave. At the same time, a zoom lens moved in and out during each concentric exposure. This, in addition to the rotational device, resulted in a "spin" and "swell" on the final composite.

Mamut recalled that "on the test, 200 octagonal mattes were used. On the actual job, however, 400 to 1,200 were used. That meant 1,200 octagonal exposures per frame. The divisions were completely invisible. At that point, I knew we really had something."

The Renault "plastic car" campaign for Grey Advertising was contracted to R/Greenberg Associates in 1983. In the particular scene already described, the car was shot traversing the road in an "S" formation. Mamut made a decision list as to what frames would be selected to "extend" the car, programmed the printer with that information, and reprinted the entire scene through 1,200 slit-mattes. The result: an image in which blurred frames, microseconds apart, were suspended at a given point, creating the "stretch."

Obviously, an elastic effect in this situation can only work if the scene is filmed with a locked-down camera. Everything except the car must be totally static. Even a falling leaf would "time-expand" in the reprinting.

That problem actually cropped up during the shoot. Trees on the left side of the road were blowing in the wind. The solution was to film the tree section separately and recompose the scene on the printer, using a simple area matte. The elastic effect was then introduced on the doctored footage.

In 1985, the R/Greenberg team came up with another variation of the effect. An AT&T commercial called for the cover of *Time* magazine, headlined by the Chernobyl Meltdown, to disperse into hundreds of linear fragments and reassemble

itself. The idea was to suggest an electrical impulse. Eugene Mamut credits optical director Stuart Robertson with the idea of "random mattes."

An optical zoom was done on the *Time* cover and reprinted through a hicon roll of horizontal slits. As in other elastic effects, the zoom movement provided the basis for a disassociation of the image. Only this time, each of the 200 + divisions were recombined *randomly*. It was nothing short of an ADO video effect. The beauty of it, of course, was that it was done on film, not tape.

A more spectacular example of "random reconfiguration" was done for a Citrus Hill orange juice spot. A girl was filmed spinning in place in front of a blue screen. Through a series of horizontal slits, the girl's body was reprinted completely out of sequence. The uncanny result was that of a twisted, coiling female form. [The idea was to have a "liquid" girl pour out of a juice carton into a glass. But the image proved too overpowering and an alternative was used. A zoom was done on a static girl. Like the *Time* cover, she is disassociated into random linear fragments and "comes together" in the juice glass.]

Mamut stresses that hundreds of different-shaped slit-mattes can be used for an elastic effect. They can be linear, circular, multiple squares, humanoid, or whatever. The mattes can run forward, in reverse, at random, or in "frame select" (the Renault spot). Moreover, each slit-matte progression can be used with 4 different axes of movement: east-west, north-south, zoom, and spin. By using these printer movements and myriads of different matte shapes consecutively, on different passes, the alteration of the original production shot can be mind-boggling. He likens the elastic effect to critical mass in an atomic bomb.

"You build quantity to some point. Quantity mutates and a new kind of quality is created. Chain reactions occur. The elastic effect is really an application of this same natural law. You start increasing the quantity of split-screens. After some 'critical point,' a new image is created, a new look. A new effect."

Recently, director Ron Howard hired R/Greenberg Associates to come up with a logo for his new film company, Imagine Entertainment. For this, Eugene Mamut did a slow optical zoom on a background plate of dark clouds. Soft concentric slit-mattes, generated by the CGI department and transferred to hi-con film, were introduced on the printer. By printing the zoom through the slits, and disassociating



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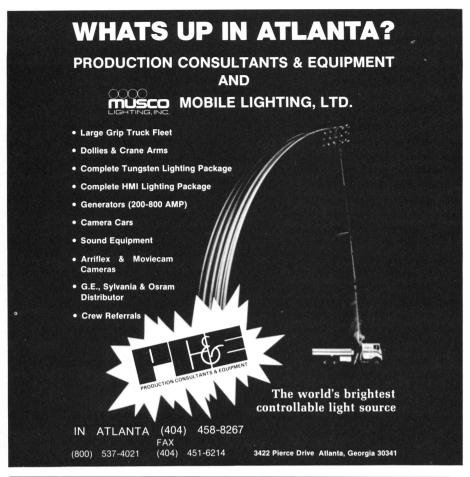
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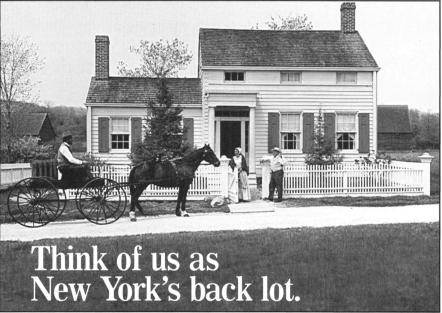
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Thomas S. Gulotta, Nassau County Executive Patrick R. Halpin, Suffolk County Executive Martin R. Cantor, Director, Office of Economic Development the zoom's time continuum, the clouds were transformed into a soft, mesmerizing ripple, as if a stone had been dropped in a pool of water.

In 1986, a variation of the elastic effect was ready for a feature film. The opportunity came with *Predator,* the title character being an extraterrestrial monster capable of blending perfectly with a jungle environment.

This illusion (dubbed "the camouflage effect") was created with a series of concentric mattes that conformed to the Predator's traveling shape. The mattes were devised by supervisor Joel Hynek and created by Mamut, using a painstaking, multidirectional positioning process for the production of those mattes directly on the CompuQuad printer. Once they were done, various takes of the Predator's jungle environment were shot at different focal lengths and inserted into the character's shape, concentrically. The creature resembled a moving Fresnel lens – something that had never been seen before theatrically.

"At first," says Mamut, "we thought that a smooth Predator image would require 100 concentric moving mattes for each frame of film. This would've required tons of hi-con rolls, which was impractical.

"Joel Hynek decided to go with only 12 concentric mattes. This created a distinctively contoured look and added more visually to the Predator's image."

Not surprisingly, *Predator* was nominated by the Academy of Motion Picture Arts & Sciences for this year's Visual Effects Award.

Eugene Mamut sees a bright future for the elastic effect in commercials and motion pictures. The most complicated ones are difficult to produce on computers, he notes, because there is not enough memory in them at the present time.

That notwithstanding, he reports that the CGI department of R/Greenberg Associates has created the first tests of an elastic effect using computers, without going to hi-con mattes. The live action image was digitized. From this information, a new elastic effect frame was assembled. Joshua Pines made the program.

Mamut points out that it takes two to four minutes on an optical printer to create one frame of an elastic effect. "It takes longer to do on a computer. But as the computer accumulates more memory, the effect will be done faster, and with better quality. I think we can look forward to an abundance of new and exciting images." \triangle

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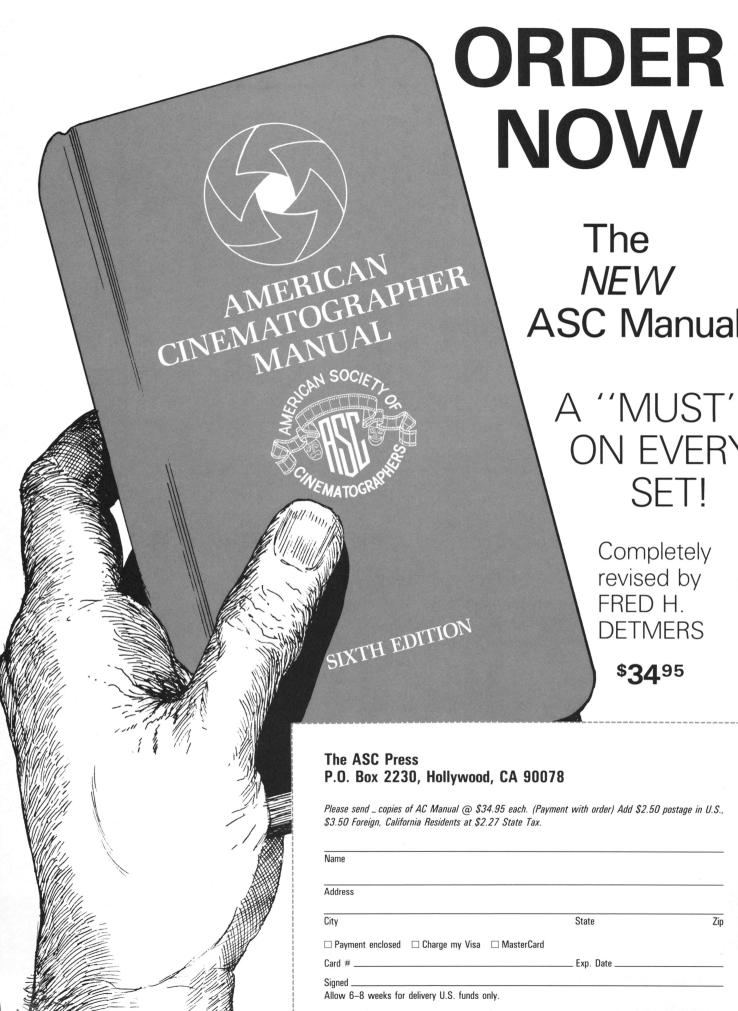
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Unique Technique for Cine-Robotique

by Kee Young

Computer assisted cinematography is the synthesis of the craft of cinematography and computerized motion control. Motion control is a versatile technology that executes precise and repeatable camera moves with an accuracy beyond the capability of any human operator.

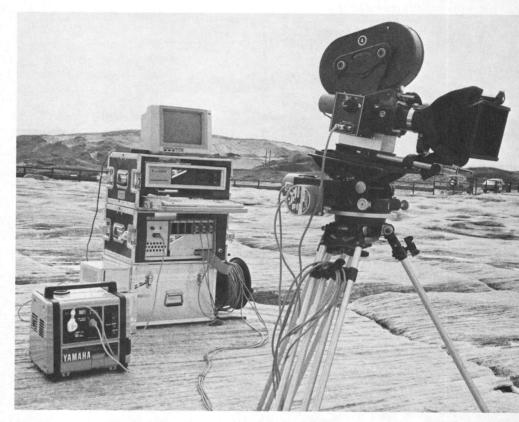
Cine-robotique is a film entirely photographed with motion control camera techniques. Every shot in this innovative short was programmed and controlled by a Lynx Spectrum motion control system, both on location and in studio situations. Until now, motion control has been generally limited to the production of elements used in special effect film or video tape composites.

Two years ago the Australian Film Commission sponsored Michael Jacob and Tim Segulin on a research study of special effect trends in the U.S. They visited most of the major houses including Apogee, ILM, Boss Film Corporation, Praxis Filmworks, Dreamquest, Walt Disney Studios, to mention a few. Accompanying them as an independent observer was colleague Matt Butler, an Australian director/cinematographer of local repute.

While at Apogee, Matt Butler was impressed by the user-friendliness of the Lynx Spectrum motion control system. Arrangements were made for a system to be forwarded to Australia to be used for his next production. A "portable" location system was configured - full camera functions, focus, aperture, zoom control, a repeatable pan and tilt head and a simple one pass tracking system.

The equipment was to be employed on Lightfall, a 35mm anamorphic film directed and photographed by Butler examining the Australian natural landscape, a project to be produced during the 1988 Australian Bicentenial year celebrations.

Before this ambitious project began (which was to be filmed all over the Australian mainland), it was decided that a short film, Cine-robotique, should be produced to both de-bug the system (not many were found) and to familarize the two-man crew with the new technology. Cinerobotique employed a wide spread of computer assisted cinematographic techniques. matched pans and tilts, moving real time.





Apogee Film Corporation. The Spectrum runs on an IBM compatible computer, and is expandable from 6 to 42 channels or more, controlling any motor type including stepper, DC servo and audio controlled varieties. Via proprietary disc-based soft-

Above: The Lynx Spectrum motion control system as configured for location use, showing the modified camera, motorized pan and tilt head, computer, and motor drives with small generator and power conditioner. Left: **Director Matt** Butler programs a matched move featuring the Sydney Harbor Bridge.

and matching time lapse moves. The focal

length of controlled lenses ranged from

extreme telephoto to macro lenses. At the

heart of the location system is a Lynx

Robotics Spectrum, a full function motion

control system produced in association with



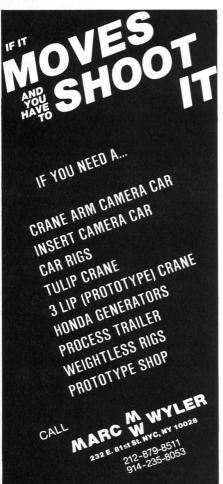
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ware, any IBM compatible can be employed as a motion control system with the additional installation inside the PC of one or more 6-channel controller boards. These controller boards regulate the separate motor drive boards based in the motor drive case, which in turn control their respective motors for camera, tilt, pan, focus, zoom and aperture or track.

For basic location/studio cinematography, programming is relatively straightforward. The cinematographer uses "point to point" programming and simply selects the beginning and end of the shot, together with shot duration, and enters these values via a keyboard into the system's "run time" screen. The computer calculates all axes of movement for all the mechanical components, pan, tilt, etc. If the director wishes fairings on the beginning or end of the shot, these are simply entered using the "ease-in" and "ease out" function.

Matched real time moves with identical speeds are easily programmed. *Cine-robotique* demonstrates this with a series of matched extreme telephoto tilts of different scenes which cut smoothly together to form one sequence.

If encoders are fitted to the pan and tilt geared wheels the computer will memorize the operator's move and play it back in real time or scale it up or down for process work.

The basic computer gear travels in three roadcases – the first holds the IBM compatible and slide-out keyboard, the second contains the motor drives, while the third carries the computer VDU (which can double as a video assist monitor), motor cables on a cable drum, and other necessary small items including floppy disks, multicore and power cables. A small generator and power conditioner provide the 240 volt 50 cycles power required to operate the system. The equipment can be unloaded, set up and programmed in a comfortable ten minutes, or five minutes if the pressure is on.

One of the sequences in *Cine-robotique* illustrates the use of identical matched location moves dissolving in and out to give the appearance of a single continuous move.

The camera pans from a central position in a bandstand around the circumference of the surrounding picket fence, while the talent changes position during each respective take, shifting from screen left through center to screen right. The final result creates the illusion of the talent changing position by slowly disappearing and re-appearing through a series of long dissolves in front of the moving picket fence

while the distant background remains constant in what appears to be one continual pan without any bumps or jumps.

This sequence also demonstrates the real time flexibility of the system – a human operator would be hard pressed to match the exact frame count necessary for such a precisely matched move. In fact, programming real time moves is as rapid as a cameraman selecting shots, as two key strokes enter position, channels and frame count.

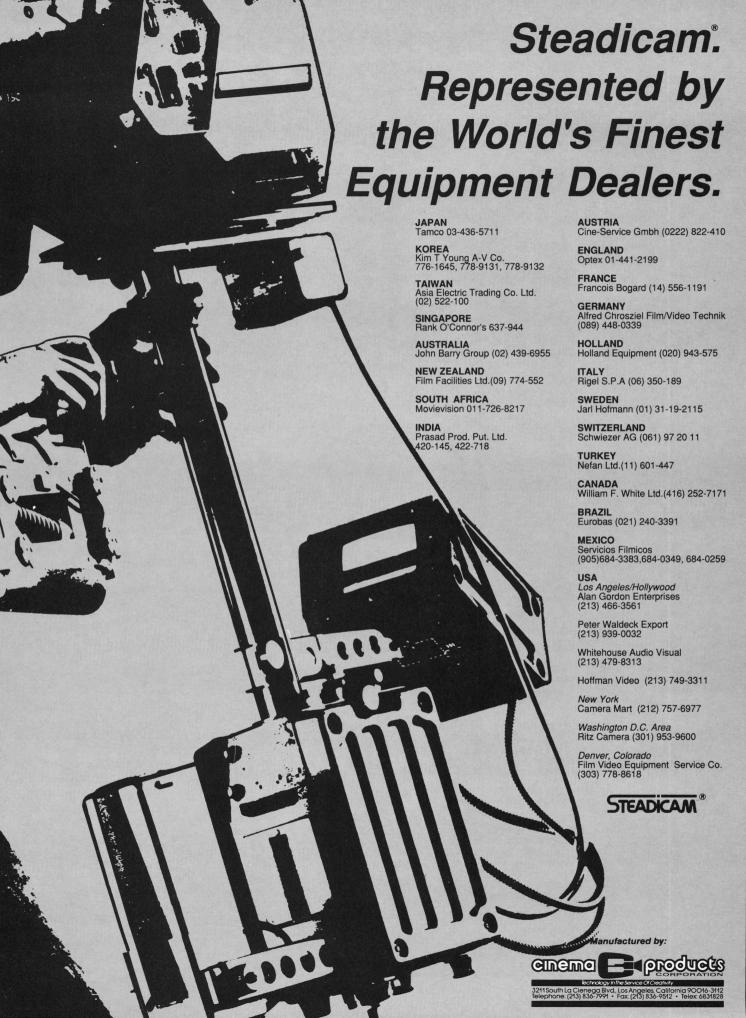
Another example using a long lens illustrates the ease of "point to point" programming. The beginning and the end of the shot is selected and framed and these positions entered. The shot is then run, and if a different time is required between points, this new time is typed in and the shot runs again with the exact beginning and end, but now with the new time.

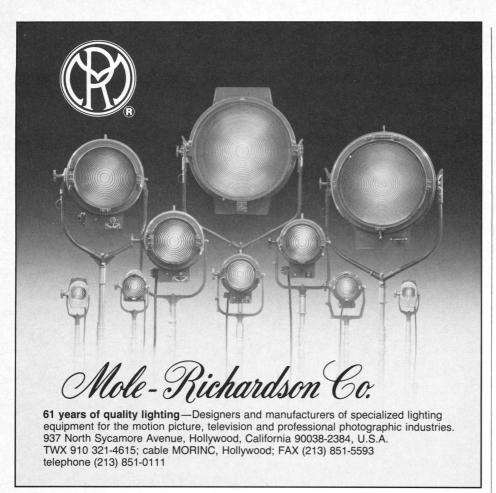
The equipment has travelled around Australia in the back of a Ford F-100 truck in the most extreme environments, from the intense heat of the Red Centre and Ayers Rock to the tropical monsoons of the far north of Australia.

The crew was filming moving time lapse thunderstorms and lightning during the wet season near Darwin, in an area known as the top end of Australia. A large storm front that was building out to sea suddenly changed course, as protective plastic covering was hurriedly thrown over the equipment. Those who have experienced a tropical downpour will understand what the word wet really means. Rainwater was pouring down the VDU screen, trickling over the keyboard, while the plastic clad camera and head clicked away recording a visually dramatic storm sequence passing overhead.

That evening a very damp crew set up the gear in a hotel room to dry out. The system operated without fail the next day.

Time lapse cinematography traditionally uses a locked-off camera to achieve its effect because the cinematographer is shooting in non-real time (e.g., one frame every ten seconds), and moving the camera during the shot is impractical. Time lapse shots with pans and tilts are simply programmed by causing the motion control to function as an intervalometer instructing the motor driving the camera shutter to stay open for whatever length of time is necessary. The pan and tilt function operates in "go-motion" mode, panning and tilting while the shutter is open creating natural motion blur on the frame, as opposed to the stroboscopic stuttering effect of ordinary







stop frame photography.

A director of photography can rehearse a time lapse move in real time using simple "point to point" porgramming and then enter the required time scale parameters and the computer runs the shot. The potential operations are limitless – effective real time moves dissolving into matched time lapse moves are executed with ease. Simple cutting between a real time move and a duplicate identical time lapse move at the same location is possible. Matched macro moves over very small objects in real time or matched multi-exposures for "in-camera" opticals can be executed perfectly.

A real time or time lapse move can be programmed, photographed, and then stored on floppy disk allowing later replay of the exact same move at another location or in a studio for a process composite shot. The system permits process photography on a blue screen stage with pan, tilt, zoom and focus pulls which can be stored on disc, enabling the second unit to shoot the corresponding background plate.

All parameters can be scaled up or down to adjust moves with large models or miniatures respectively. Any portion of the move can be shortened or lengthened in time or space. Any axis that can be motorized can be controlled as programmable focus pulling, and focus calculation for different lenses is provided.

The modified software contains a camera program to perform calculations for depth of field, angle of view, safe HMI windows, and shutter angles. A diary, calender, notepad and decimal calculator allows working documentation of the shot to be saved to disk.

The end result of the computer-assisted cinematography employed in *Cinerobotique* is very subtle. The moves are so smooth as not to draw attention to themselves – regular viewers accept the hitherto impossible shots as if they are fairly ordinary. Those in the know, especially cinematographers and film crew, are acutely aware of the precise control over complicated moves displayed on the screen.

In summary, this is a powerful tool for location/studio cinematography permitting full creative control, limited only by the cinematographers' application.

This article is an edited version by Kee Young of a technical paper presented by Matt Butler on "Computer-assisted Cinematography" to the 3rd Australian SMPTE Technical Conference held in Sydney in June, 1988.

New, Improved 16mm Sound

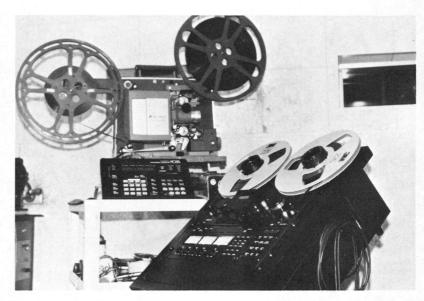
by Scott Dittrich

Image quality is of supreme importance to 16mm surfing films, since so much of the impact of our films comes from the beauty of the ocean and exotic lands. Maintaining this image quality has never been a problem at Scott Dittrich Films, in spite of our 16mm format. Using the tried and true Bell & Howell 567 16mm projectors with Marc 350 high intensity lamps gives both portability and enough brightness for even the largest theaters, halls and civic auditoriums.

Sound quality, however, has been a very different situation. Like most 16mm films, ours were projected with optical sound. The limitations of a 16mm optical soundtrack became particularly severe for us in the last several years. Our films have evolved into stylized documentary travelogues, with up-front music being the key to setting the pace of a particular sequence. We recognized that to keep our audience and compete with home video we had to have something better than monaural optical sound.

While we had tried to optimize our sound systems over the years by taking direct feeds from the exciter lamp (bypassing the projector's less than adequate amplification circuitry), we were still stuck with the inherent limitations of 16mm optical. Running at only 36 feet per minute (approximately 71/2 ips), optical sound has a dynamic range of approximately 40db, and anything above 5KHZ is nonexistent. Thus the typical highs of a flute do not reproduce and the "punch" of today's rock music is lost. The optical track reproduces approximately 60HZ to 5KHZ \pm 2db. As a comparison, the standard 35mm optical print that you might hear in your local multiplex theatre has a dynamic range of 45-50 db and a frequency response of 30HZ to 8KHZ. Standard 35mm optical sound has the minimum quality one could expect in a local theater. Even this, however, is far superior to 16mm optical, since it runs nearly twice as fast as 16mm at close to 15 ips, and has a wider sound band.

Shooting in 35mm or even blowing up to 35mm from the 16mm negative is, unfortunately, prohibitively expensive for us. And while video has the sound quality, there



Left: Typical system setup with Fostex E-2 three channel tape deck, 4035 controller. 4030 synchronizer (not shown), and Bell & Howell 567 16mm projector. Below: The 4035 controller displaying time code from the projector while operating in the "auto lock" position.

is currently no way to maintain image quality on a large format screen.

We felt we were competing with one hand tied behind our back. We had considered going to a magnetic stripe on our prints, but we could not find anyone who could equip our Bell & Howell projectors with a magnetic pickup. Eikie makes an excellent projector capable of playing magnetic prints, but the more we spoke with people who had experience with striping 16mm with magnetic sound, the more we heard about the track's tendency to have dropouts or even peel off after repeated screenings. The final reason for not trying the mag stripe was the realization that even if we set up for mag stripe on our films, no one else in the world who showed our films would be set up to run these prints. The standard in 16mm projection was optical sound, whether the showing was in Los Angeles, Sydney, or a ski resort in the French Alps.

While completing post production on *Amazing Surf Stories* in August of 1986, we resigned ourselves to yet another year of mediocre sound quality. We lamented this fact to Brent Keast of Cinesound in Hollywood, where we have mixed for a number of years, and Brent mentioned that Cinesound had been researching the possibility of interlocking a Fostex three



channel reel-to-reel tape recorder with a 16mm optical projector. A matching time code would be recorded on both the optical sound track of the film and the center channel of the Fostex. Interlock would be facilitated using a Fostex synchronizer, and we could have reel-to-reel sound quality in hi-fi stereo. Needless to say, we were very interested.

Over the year, we closely followed Cinesound's development of the system. By mid-summer, we were confident that the concept was viable and committed ourselves to using the system in our thencurrent release, *Gone Surfin'*. Coming right down to the wire, we did a complete rehearsal only one day prior to our September 26th premiere — and the system worked flawlessly. With a dynamic range of 70db and a frequency response of 30HZ to 20 KHZ (± 2db) we at last had sound quality

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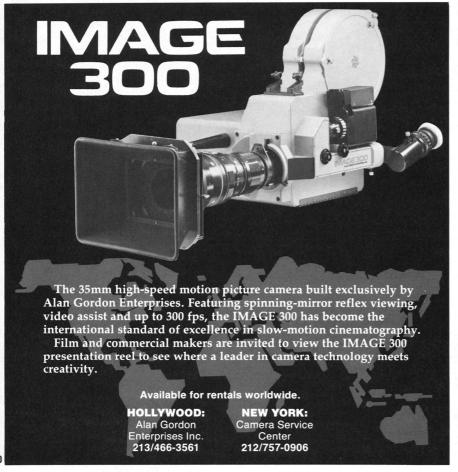
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commensurate with our picture. The next night at the Santa Monica Civic premiere we had undoubtedly our best 16mm presentation ever.

With the system, as developed by Cinesound engineer Mark Rozett, we dubbed the various reels that would make up our show as usual, but instead of recording onto a 35mm three stripe, we went to a four stripe 35mm master, using 3 mil. stock, so that an entire 45 minute, 16mm reel would fit on one sound roll. We then recorded a SMPTE non-drop time code on the fourth channel of the 4-stripe. Thus the code would be locked in dead sync with the mag and, consequently, with the picture. The 4-stripe was then transferred to the Fostex reel-to-reel tape recorder, with the M & E and dialogue tracks mixed to the left and right channels of the Fostex, and the time code track transferred simultaneously to the Fostex center track. The 35mm code track is subsequently used to make the standard optical negative for 16mm prints.

Using a standard line level output of a 16mm projector, the projector becomes the "master" and is fed to a Fostex 4030 synchronizer. The reel-to-reel tape deck is also connected to the synchronizer, but becomes the "slave." The output of the right and left channels of the reel-to-reel contains our sound track, running at 15 ips (some Fostex models can be run at only 7½ ips since they accept only seven inch reels, which don't hold enough tape for an entire 45 minutes of sound at 15 ips). In either case, the fidelity of the reel-to-reel stereo tape adds a new dimension to any 16mm presentation, especially one in which music is important

Facilitating the lock-up of the synchronizer is a 4035 controller. While not mandatory, the controller makes the system very user friendly by providing an LED readout of the time code as well as display lights to inform the user of the mode in which the synchronizer is functioning.

For example, the controller in "master" position gives a readout of the time code of the film, accurate to one tenth of a frame. In the "slave" position, the code is displayed for the tape. The "offset" position provides the differential between the two.

The readout thus facilitates an easy start-up at the beginning of each reel. The film is run with the display in the "master" position up to the approximate code number at which one wishes to start. The projector is stopped at this point and the controller switched to "offset." The tape deck is then run until the display, now



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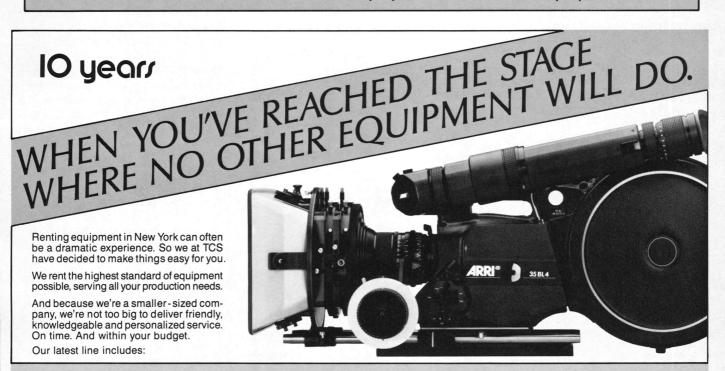
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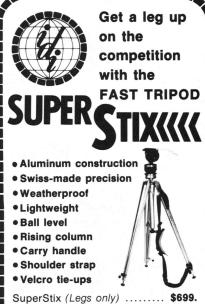
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reading the differential between the code numbers on master and slave, is near zero. To begin the film, the projector and tape deck are started at more or less the same time. Since "lock up" occurs almost instantly, there really isn't much concern that the projector and tape deck are started simultaneously or even that the offset be at exactly zero. In normal operation, the controller is left in the "offset" position, which will read 00:00:00:00 throughout the show.

The controller/synchronizer has three sync modes and two ways of finding sync. In "lock enable" the recorder will search for sync at tape speeds from one-half of normal to up to two times normal. This is the preferred setting, since in "chase enable" the recorder will go into fast forward/ reverse to locate sync, and when it does find sync, the transition is much too abrupt for a public performance. Also, rarely during a performance would the film be so far out of sync as to necessitate fast forward.

Of the three sync positions -"frame lock," "auto lock," and "sync lock" the automatic function is best suited to a theatrical performance. As long as the film is close to sync in "auto lock" (within about 40 frames), the tape deck will creep back to dead sync without the pitch change being noticeable, even to someone familiar with the soundtrack. It seems to take about one second to converge the master and slave for each ten frame offset between them.

In "frame lock" the machine maintains an exact time code match between master and slave. But since the master (projector) does not have a constant speed motor, it is subject to considerable wow and flutter. There is consequently a potential for this wow and flutter to be translated to the tape deck. On a more practical basis, should there be splices in the print, one does not wish the slave to attempt reconciliation of numbers that can't be found. Fortunately, there is no reason for the tape deck and synchronizer to work so hard to maintain exact sync.

In "auto lock" the synchronizer maintains an approximate sync that for practical purposes does give an exact lock. It is definitely the preferred position for running 16mm stereo interlock. While allowing slight variation in sync, the LED readout in "offset" position displays only a flicker of deviation in the 1/10th frame range. The synchronizer handles splices and even missed code on the track without noticeable variations in the audio.

As we initially tested the system at Cinesound, we tried everything we could think of to trip up the sync, figuring that

sooner or later the worst would happen under normal operating conditions during our road shows. We spliced several frames out of the print, spliced together several lab rolls with discontinuous time code, and removed a section of the 1/4 inch tape and cut the matching piece of film. We even briefly disconnected the audio output from the line out on the projector. While we did see the time code readout of the controller fluctuating from zero in the offset position, only by leaving the audio output cord disconnected for more than several seconds did we hear any fluctuation in the soundtrack.

The "sync lock" position provides a very interesting option. In this mode, the synchronizer locks the time code rate between the master and slave. In our first print, for example, the lab had missed a pullup on one very short reel, so that one section of the film was off by 26 frames. (At the start of this section there were actually 26 frames without any sound and therefore lacking in code). In "auto lock" the synchronizer would take about two to three seconds to regain the match between the time code numbers on master and slave. Even though the code numbers matched, the sync we intended was off by the 26 frames. At the beginning of the next reel it would take another two to three seconds for the numbers to converge once again, and our desired sync to be reached. But by punching in "sync lock" just prior to the beginning of the reel, the correct relationship was maintained even though the "offset" reading showed a 26 frame differential. As soon as the new reel started, the offset returned to zero and we punched back into "auto lock."

This problem could have been handled another way, which exemplifies the considerable flexibility of the system. The 4035 controller can be programmed for an offset. If a new section was inserted into the print, the time code on the master and slave would no longer match. By punching in the offset function at the appropriate time, the synchronizer will accept that section's code as matching in all subsequent runs, automatically allowing for the difference in code numbers.

In the three months of road shows of Gone Surfin' since our premiere. we have run more than 50 showings using the Fostex interlock stereo system, and the sound quality is phenomenal. There were, however, a few minor problems worth mentioning.

First, in testing all of our projectors, we found that one would not read the code at all. Since the typical optical sound

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Another problem occurred while screening a print for the executives of Virgin Records, who had graciously supplied us with music. The audio cable from the projector to the synchronizer had been bumped slightly in the projection booth, and the system suddenly lost code from the projector. The sound sped up and slowed down as it tried in vain to locate sync. The immediate solution was to unlock the synchronizer and use the pitch control on the tape deck to get the music and picture back into approximate sync. We could see that the projector was not reading the master code, but the wire had only been grazed. Nonetheless, we hooked up a new audio wire between the projector and synchronizer and the master code once again reappeared. The wire must have been damaged previously and just picked an inopportune moment to fail.

The only serious problem we encountered began as we would run the projector up to the correct time code for start up. When the projector was stopped, the time code on the controller in the master position would keep climbing. This was obviously caused by some type of ground loop, but actually turned out to be no problem at all. In the prior days of optical sound, many nervous nights were spent trying to eliminate the 60 cycle buzz from the sound system, but with the Fostex system, the problem could be ignored. We could switch the controller to "slave" and run the tape deck up to the starting number. Even though the master code was still running wild and therefore the "offset" position was meaningless, once the projector was restarted, the master code again read properly, so that sync was achieved as usual. As long as the projector was running, the influence of the ground loop was insignificant.

In short, the Fostex Interlock system as adapted by Cinesound is the perfect solution to hi-fidelity stereo sound for 16mm presentations. It is easy to set up, compact, and affordable. It should breathe new life into 16mm film, and the engineers at Cinesound and Fostex deserve a solid round of applause (in stereo, of course) for developing and adapting the system.

VideoGram

by Mike Maginot

If you are planning a Halloween video festival this year, two titles now on video, both covered in the pages of American Cinematographer, are The Witches of Eastwick, beautifully shot by Vilmos Zsigmond, ASC, and Full Metal Jacket. Kubrick's testament to the horrors of training, if not war. More titles dealing with pods, bods, vampires, ahosts, murderers, other worlds, crazy comics, and rock and roll stars follow:

Invasion of the Body Snatchers Produced by Walter Wanger. Directed by Don Siegel. Photographed by Ellsworth Fredricks, ASC. (Republic Home Video)

"There's something strange going on in Santa Mira." Pods from outer space are hatching replicas of the human inhabitants. Kevin McCarthy and Dana Wynter star in the 1956 sci fi/horror classic.

This B-movie gets an A for cinematography. Ellsworth Fredrick's B&W work actually glows thanks to an excellent video transfer. Highly collectible.



The Incredible Shrinking Man Produced by Albert Zugsmith. Directed by Jack Arnold. Photographed by Ellis W. Carter, ASC. (MCA Home Video)

The plight of the little man, in this case Grant Williams, is the subject of Richard Matheson's philosophical screenplay. The ordinary becomes the extraordinary as Williams makes his change from the familiar to the fantastic.

Optical effects are credited to Boswell A. Hoffman and Everett H. Broussard, with special photography by Clifford Stine, ASC. Here in all its seeming simplicity is a cinemagraphic archetype modern special effects wizards look up to and admire.

Son of Dracula Produced by Ford Beebe. Directed by Robert Siodmak. Photographed by George Robinson, ASC. (MCA Home Video)

An unusual footnote in the history of vampire films, here is a story where the vampire is the victim. Lon Chaney, Jr. as Count Alucard is the pawn in a mortal's plot to gain immortality.

Chaney has a great collection of entrances and exits even though Louise Allbritton and Robert Paige dominate the action as lovers caught in a bizarre triangle of occult desire. George Robinson has lit the film romantically as it is more of a love story than the title would suggest.

Hamlet

Produced and directed by Laurence Olivier. Photographed by Desmond Dickinson. (Paramount Home Video)

A classic ghost story, Hamlet takes place in that netherworld beyond stage and sound stage, the theatrical sound stage. The camera trucks, dollies, and rises to the occasion as Olivier looks at Olivier as Hamlet.

A tour-de-force. Hamlet is a fascinating film to view on video. Armed with a copy of the play and a remote control, the curious viewer can examine just how Olivier highlighted Shakespeare's drama to satisfy the demands of the screen.

Shadow of a Doubt Produced by Jack H. Skirball. Send Change of address to: American Cinematographer P.O. Box 2230 Hollywood, CA 90078

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Directed by Alfred Hitchcock.
Photographed by Joseph Valentine, ASC.
(MCA Home Video)

Often cited as one of Hitchcock's personal favorites, *Shadow of a Doubt* is a suspenseful game of cat and mouse as Joseph Cotten tries to elude two detectives who suspect that he is the infamous "Merry Widow Murderer."

Hiding out in the small town of Santa Rosa, California, Cotten tries to blend in with his family members as the worldly Uncle Charlie who has come to visit. Joseph Valentine casts some evil shadows over the idyllic American landscape.

Light Years Produced by Bob Weinstein. Directed by Harvey Weinstein. (Vidmark Entertainment)

Giving credit where credit is due is often a difficult task in the world of film and video. In the case of *Light Years* we are looking at an American version of a French and South Korean collaboration initiated by Rene Laloux.

Like Laloux's Fantastic Planet, Light Years is adult science fiction and may not be right for small children or adults who think cartoons are just for kids. Science fiction fans will be impressed by Isaac Asimov's intelligent adaptation of the original story and the imaginative look of this animated epic.

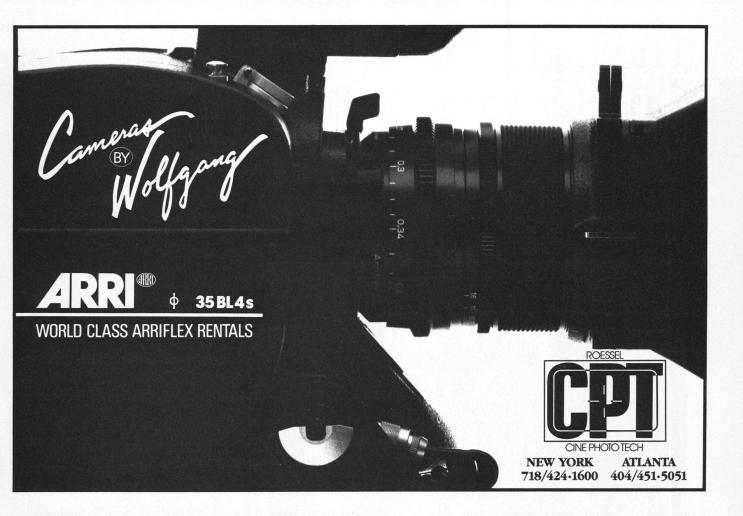
An Evening With Bobcat Goldthwait Produced and directed by Anthony Eaton. (Vestron Video)

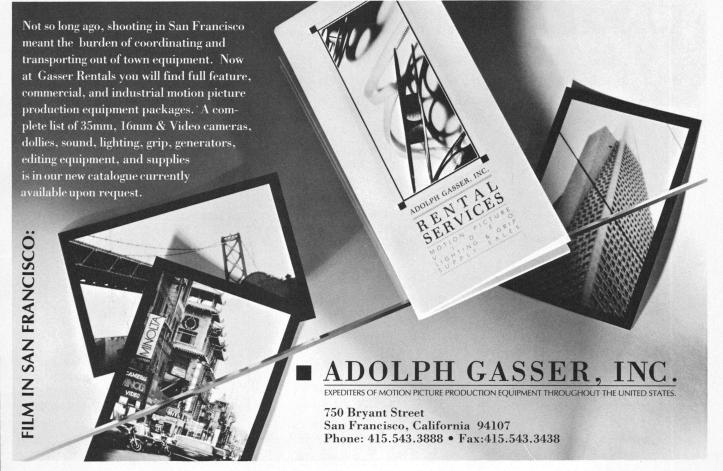
Capturing the comedy of Bobcat Goldthwait on video is a lot like caging a wild beast. Goldthwait is downright scary as he growls non sequiturs at his audience. His steamroller delivery will turn off some viewers, but beneath the verbal cacophony is a mind tuned with "mental floss."

Allen Branton's lighting design is a springboard for Goldthwait's comedy, providing him with gags and at one point costuming him in red as he discusses things satanic.

Underworld U.S.A.
Produced and directed by Samuel Fuller.
Photographed by Hal Mohr, ASC.
(RCA/Columbia Home Video)

Cliff Robertson plays an ex-con





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determined to avenge the murder of his father in this cult classic. Hal Mohr's stylish cinematography takes Fuller's story into a mythic realm reminiscent of Raoul Walsh's Roaring Twenties.

Isadora Produced by Robert and Raymond Hakim. Directed by Karel Reisz. Photographed by Larry Pizer. (MCA Home Video)

Isadora is an epic character study of a truly bizarre woman. The small screen can hardly contain the scope of this picture as it assaults the viewer with image and emotion.

Larry Pizer's colorful cinematography complements Vanessa Redgrave's equally colorful performance as the controversial Miss Duncan. James Fox, Ivan Tchenko, and Jason Robards play her lovers.

Nova: Visions of the Deep Produced by Tony Salmon (BBC) and Melanie Wallace (Nova). Photographed by Ray Henman and Hiro Nirito. (Vestron Video)

Subtitled, "The Underwater World of Giddings" this episode of the popular television series Nova examines Giddings' work in natural history films, motion pictures, and with Disney's CircleVision process.

Interviews, documentation, and a wide variety of stock shots from the Giddings' archive make this an exciting undersea adventure. Explanations of how shots were made are an added video value for AC readers.

Michael Landon narrates from Melanie Wallace's script.

David Bowie: Glass Spider Produced by Anthony Eaton. Directed by David Mallet. (MPI Home Video)

Soft light and saturated colors are highlighted in David Bowie's tour video, Glass Spider. Staged and choreographed by Bowie and music video pioneer, Toni Basil, the concert's centerpiece is a giant spider that dominates the set where Bowie, band, and dancers perform. More operators than usual were required in order to capture the many nuances of this truly theatrical extravaganza.

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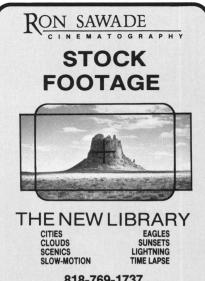
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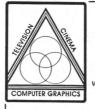
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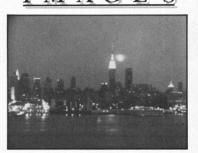
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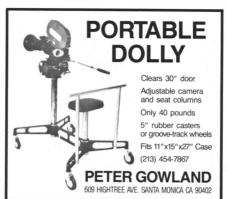
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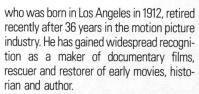


Born in Rome, Italy, in 1940, he studied at the Italian Cinematographic Training Center and the Centro Sperimentale di Cinematografia, then worked as an assistant to cinematographers Aldo Scavarda and Marco Scarpelli. He became an operative cameraman at the age of 21. During the film crisis of 1963-64 he studied Vermeer. Pavese, Caravaggio, Faulkner and Mozart, all of whom he feels played important parts in his artistic development. He returned to his work as an assistant, then operator and a photographer of short films, but refusing several offers as director of photography until he felt he had gained the maturity he deemed necessary.

His first feature as author of photography – to use the Italian title – was *Giovinezza*, *Giovinezza*, of which he said, "The feeling is incredible: like that of a first love." Among the many loves that followed, some of the most notable are *Bird of Crystal Plumage*, *The Conformist*, *Last Tango in Paris*, *Apocalypse Now*, *Agatha*, *Luna*, *Reds*, *One From the Heart*, *Richard Wagner*, *Ladyhawke*, *Ishtar*, *The Last Emperor* and *Tucker*.

Storaro's home is in Marino, Italy, but his work takes him to many parts of the world.

Kemp R. Niver, an associate ASC member for 26 years and long-time curator of the museum at the clubhouse, has now been elected to active membership. Niver,



He received an Academy Statuette in 1954 for "the development of the Renovare Process which has made possible the restoration of the Library of Congress Paper Film Collection." (Renovare is a Latin word meaning "to make new again.") During a 10-year period, working with bromide prints made from master negatives made prior to the Motion Picture Copyright Law, Niver brought back to life more than 300 films dating from 1889 to 1900 and more than 3,000 1900-1915 productions, all of which had been presumed "lost." These include most of the works of Edison, Biograph, NYPC, Lubin, and many others. In 1987 he received the Preservation and Scholarship Award of the International Documentary Association.

His early career was in the legal profession in the L. A. District Attorney's office and in the investigative field for the federal government and the State of California. During World War II he served on destroyers, earning the rank of Commander.

Niver's books include "Motion Pictures From the Library of Congress Paper Print Collection, 1894-1912," "The First 20 Years – a Segment of Film History," "Mary Pickford, Comedienne," "Biograph Bulletins, 1896-1908," "D. W. Griffith's The Battle at Elderbush Gulch," "D. W. Griffith - His Biograph Films in Perspective," "Klaw and Erlanger present Famous Plays in Pictures." and "Early Motion Pictures." He was active in the establishment of the Lytton Museum of Visual Arts in Los Angeles and was instructor of film history at Loyola-Marymount University. He is a member of AMPAS, a life fellow of SMPTE, a fellow of Photographic Society of New York, and a member of the International Museum of Photography at Eastman House. A widower, Niver lives in Hollywood.

N. Paul Kenworthy, president of Kenworthy Snorkel Camera Systems, Inc., is now an associate member of the ASC. Born in Philadelphia in 1925, he is a veteran of 31 years in motion pictures as a cinematogra-

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pher, director and inventor.

Kenworthy photographed The Living Desert as his MA degree requirement at UCLA. He sold the footage to Walt Disney and it became the basis of the first feature-length True-Life Adventure, winning an Academy Award in 1953. For Disney he was head cinematographer and co-director of Perri (1958), producer-director of Rustv and the Falcon, and a contributing cinematographer to The Vanishing Prairie and The Mickey Mouse Club.

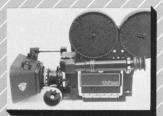
In 1964, with input by Vincent Kling and William Latady, he invented the Kenworthy Snorkel Camera, which was used initially to provide POV shots in miniature settings. Improved models expanded its use to many other areas of special photography. In many instances Kenworthy has photographed snorkel sequences in association with leading directors of photography on such films as Beetlejuice, Logan's Run, One From the Heart, Big Trouble in Little China and Batteries Not Included.

Kenworthy and Latady received an Academy Award in 1977 for the invention and development of the system. In 1986 Kenworthy and Bob Nettman created the newly designed Kenworthy-Nettman Snorkel Camera System, which vastly expands the capabilities of snorkel cinematography.

John Farrand, president and chief executive officer of Panavision, Inc., has been named an associate ASC member. He was born in Huddersfield, England, in 1944, and was an electrical engineer until the late 1960s. He joined the Music Hire Group of Leeds, England, becoming managing director in 1972. The company grew rapidly, becoming the largest operator of music systems and video games in the world. Farrand came to the U.S. as president and chief executive of Atari Coin Games. Warner Communications later made him head of all divisions of Atari, Inc., to assist in the restructure and reorganization of the company.

He entered his present position at Panavision in April 1985. He has since spearheaded the company's commercial and product development, including the introduction in 1986 of a new 35mm camera system, the Platinum Panaflex. Other new and innovative products for cinematography during the past two years include the Primo lenses. a complete series of prime and zoom lenses now in worldwide use. He works in liaison with many cinematographers and directors with respect to supplying their specific equipment needs and specialty requirements.

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INSERIS



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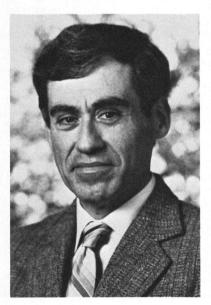
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And the Winners Are...



The Academy of Television Arts and Sciences, on August 27, presented its 1988 Emmy Awards for cinematography to Woody Omens, ASC, and Roy H. Wagner, ASC. Wagner's statuette in the category of Outstanding Cinematography for a Series honored his work in the pilot film of *Beauty and the Beast*, produced by Republic Pictures. The one-hour production aired on CBS-TV on September 25, 1987. Omens won his Emmy in the category of Outstanding Cinematography for a Miniseries or a Special for the Universal Television production, *I Saw What You Did*, which was telecast May 20, 1988.

Omens' award marks his sixth Emmy nomination and his third successive win. His previous awards were given in 1986 for the Movie of the Week, An Early Frost, and last year for the pilot film, Heart of the City. A thriller about two teenage girls who play the old gag of dialing phone numbers at random and who accidentally flush out a real murderer, I Saw What You Did is rich in both slice-of-life reality and eerie suspense along the Alfred Hitchcock lines. As director of photography, Omens interpreted the changing moods of the story through judicious use of light and shadow and subtle

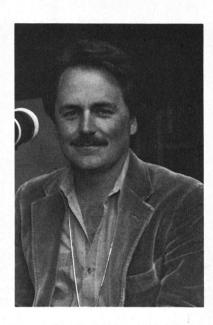
application of color, implying a growing menace in a normal, workaday milieu.

Much of Omens' artistry undoubtedly derives from his knowledge of the fine art of painting. He received his BAE degree from the Art Institute of Chicago and the University of Chicago before entering the USC Cinema School, where he earned his MA. He still pursues painting as an avocation, specializing in airbrush and egg tempera work. He has been a motion picture photographer for 23 years.

Somebody Waiting, a documentary film co-produced by Omens, was nominated for an Oscar in 1971. His theatrical and TV productions include History of the World Part I, Magnum, P.I. (pilot and 2-hour special), Alfred Hitchcock Presents, Madame X, Fire on the Mountain, The Red Light Sting, Man in the Santa Claus Suit, Evergreen, and many others – including more than 1500 commercials.

Wagner was an actor and singer before he entered the photographic field as a portrait photographer's assistant, soon gravitating into the making of TV and theater commercials. He joined the U.S. Air Force during the Vietnam conflict, serving as a documentary cameraman. Returning to civilian life, he worked on many independent projects including a documentary on cannibals filmed in Australia and New Guinea. His first feature as director of photography was Hype in 1976. Other features which followed include Nine Deaths of the Ninja, Pray For Death, No Man's Land, Witchboard, Return to Horror High, Burglar (second unit), and Nightmare on Elm Street - the Dream Warriors.

Wagner's TV work includes the documentaries, Cargo From the Silver Bird and E.T., the Search, the The Family Tree series, Celebration for Bach, and others. The Beauty and the Beast pilot, which spawned a successful series, was photographed in 10 working days, mostly on an elaborate set designed by John Mansbridge at the Ren-Mar Studio in Hollywood. Wagner said his work was complicated by the fact that "I had to show the Beast but not reveal his



features. New York had to appear cold and heartless above ground, but the tunnels in which the Beast lived were warm and hospitable. When the Beast wasn't there, however, the tunnels were cold and blue." Wagner's favorite is a 360-degree pan shot showing the character of the underground room where "Father" lives.

Nominated for Outstanding Cinematography of a Series were: Ted Voigtlander, ASC, *Highway to Heaven*, "A Dream of Wild Horses"; John C. Flinn, ASC, *Magnum*, *Pl.*, "Unfinished Business"; Gerald Perry Finnerman, ASC, *Moonlighting*, "Here's Living With You"; Richard Rawlings, Jr., ASC, *O'Hara*, "See Something That Isn't There"; and Edward Brown, ASC, for *Star Trek*, the Next Generation, "The Big Goodbye."

Nominated for Outstanding Cinematography of a Miniseries or Special were: James Crabe, ASC, Baby M: Part I; Stevan Larner, ASC, Inherit the Wind; and Phil Lathrop, ASC, Little Girl Lost.

In his acceptance speech, Woody Omens noted with pride that all of the nominees were ASC members and that all were deserving of the award.

- GT

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